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THE SCIENCE OF HEALTH,

▲
NEW MONTHLY.

DEVOTED TO THE

RESTORATION AND PRESERVATION OF HEALTH,

ON

HYGIENIC PRINCIPLES.

NATURE'S REMEDIAL AGENCIES

ARE

*LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET, BATHING,
SLEEP, EXERCISE AND REST.*

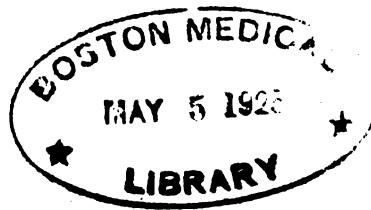
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VOLUME III.

JULY TO DECEMBER, 1873.

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We can not stretch out an arm or a foot, or walk, or run, or leap, without freshening the life-currents of the system; sending new flashes of electric warmth along the nerves and muscles; and scattering a cloud of those blue and black devils that buzz around the ears of poor sedentary students, stayers at home, and women imprisoned in nurseries and amid their household cares.—*North American Review*.



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Cultivate the physical exclusively, and you have an athlete or a savage; the moral only, and you have an enthusiast or a maniac; the intellectual only, and you have a diseased oddity—it may be a monster. It is only by training all together—physical, intellectual, social, and spiritual—that the complete man can be formed.—ILLUSTRATED PHRENOLOGICAL JOURNAL.

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NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

THE PHYSICAL NEEDS OF A BABY.

BY ELIZABETH DUDLEY.

WHEN we say that a young infant, being but a little animal with reason and affections yet undeveloped, has for a few weeks or months, physical wants, or needs, only, and will thrive and grow when these are duly supplied—we are probably right.

But do we clearly understand what are these physical needs? If we fail to supply any of them, can we expect our children to grow and develop in healthy perfection? So much has already been written upon this theme, that it would seem to be exhausted, and parents to have nothing more to learn. But, since most advice on the subject has been given by medical men; who, however wise and experienced they are, have not the same opportunities of close and minute observation as an intelligent and devoted mother—and since so many beloved and promising babies die—it is, perhaps, well to review the ground again, and yet again, until new ideas on the subject shall evolve a definite, practical scheme of management, which every mother can follow, in order to develop her child to the perfection of humanity.

Some general rules are well-known. Beautiful and delicate clothing is made ready; many young mothers even line the soft flannel bands and skirts with fine white silk, and use, with these, fine robes of gossamer, linen, and muslin. No baby is hurt by delicate garments,

provided they are not starched stiffly and fastened tightly round the body; but the wardrobe is not the only want, nor even the only preparation that can be made before birth. If the prospective mother is worried and vexed by the embroidery and lace, the silk, flannel, and the baby basket, the christening robe, and the gilded bassinet, she will injure the physical health of her offspring. It will be born with an irritable temper and a melancholy disposition, and therefore predisposed to dyspepsia. No one can enjoy good health while a victim to dyspepsia; no baby can thrive and grow, unless its stomach is in a healthy condition.

The Father's Work of Preparation.

Some share of preparation for the expected child appears to devolve upon the father, also. His duty is not done when he has supplied the mother with all the money she wants for the baby's wardrobe, etc.; he has not only to engage skilful attendants for the day of travail—not only to shield his wife during her period of gestation from every danger to health and comfort—but he must gratify her spiritual needs also. He must remember that love and caresses called this new individual into existence, and he must not grow careless and chary of continuing his caresses and manifestations of affection; lest his wife,

in her peculiar condition, may grow morbid and melancholy, constantly dwelling upon the fancy that he no longer loves her, and that life is worthless—she hopes to die before the babe is born!

This is a state of mind more common to pregnant women than will generally be believed; and, through causing it, many fathers not only bring upon their children the sufferings of a weak digestion, but also the curse of a tendency towards insanity or suicide. Surely the *physical* needs of a baby have not been duly provided for, when he is born with dyspepsia, and liability to inflammation of the brain!

But let him begin the world “all right,” a plump, rosy, well-proportioned little animal, who eats like a pig, and sleep like a kitten. Are his physical needs those of eating and sleeping only? Fresh air, sunshine, and exercise are, perhaps, as important. Many mothers, especially with their first-born, consider a little infant to be so exceedingly tender and delicate, so much in danger of taking cold—so ready to die at any minute—that they most carefully exclude the breath of heaven—the vital air—from his room; and when he is carried out of doors, bundle him up, head and all, as if he were going on a voyage to the North Pole.

Don't Torture him to Death!

He must not be chilled, indeed; but think of his tender lungs, and do not let them become diseased by breathing the same air over and over again. An infant may easily be tortured to death, but this cannot be done in a day. The most delicate of them exhibit a surprising tenacity of life; as every physician can testify who has witnessed a helpless little babe struggling against a long-continued course of poisoning by Soothing Syrup. The baby must have plenty of fresh air, and should be carried about out of doors three or four hours during the middle of the day, every pleasant day. Mothers fear the sun upon these little heads; but, properly applied, a sun bath will benefit most infants.

Have we now provided all the physical needs of the baby? He has his natural food, the mother's milk, at regular intervals, and in proper quantity. Undisturbed and refreshing sleep is secured him; suitable bathing and clothing, and a supply of fresh air and sunshine—can there remain anything unsupplied to this little animal?

He will not Thrive without Love.

This human infant must be made happy by demonstrations of natural affection. His bodily welfare demands a sunny and serene atmosphere, of which he is yet, no doubt, mentally unconscious, but which acts upon his senses, and communicates itself from them, through the brain to the body. Happiness makes babies thrive and grow—unhappiness thwarts and blights, and sometimes kills them.

I have spoken of the human infant as a mere animal, because nearly all doctors and physiologists hold that opinion. We are frequently assured that “the new-born infant is a little animal, with only animal wants. We need not be too sentimental about it.” But since I have helped into the world more than three hundred babies, and afterward visited the mothers for a longer or shorter period, but never for less than six weeks—and since my love of studying human characteristics leads me to close and minute observation of conduct—my experience of the “ways and manners” of new-born children convinces me that their perceptive mental powers begin to act very soon after birth. The perceptions cannot be exercised without developing; and, as they develop, the moral emotions are aroused and acted upon. Some uneducated mothers, who have taken their infants in their arms and suckled them within an hour or two after birth, insist that a child of a day old knows and loves its own mother. Ladies, however, who from the first have put the delicate little one to sleep in a bed by itself—especially when they have caused it to be fed artificially—declare that a child must be several weeks old before

it shows the least degree of intelligence. From observing the children of all these, and remembering my own experience when a new mother, I am satisfied that, before its first three days have passed, a child of intelligent and emotional parents knows when it is treated with coldness and impatience, or with love and solicitude; and suffers from feeble health, or grows strong and fast, in consequence.

Play and Caresses are Needed.

It evidently needs that vital magnetism which it derives from the loving caresses of the mother. That mere bodily contact is not enough, and that the spiritual (or mental) element of affection must be supplied, is evident when we compare the infants at Foundling Hospitals, who sit quiet, sad, and dull-looking, in the arms of hired wet nurses—with the fortunate babies whose own mothers care for and love them. The first look indeed like "animals;" and are seldom strong and healthy as they should be, if the above-quoted doctors are right; while the other little ones are bright and happy looking, ready to smile when played with, and able to respond to caresses.

I have taken into my arms one baby after another at a Foundling Hospital, and tried to please them by fond words and gentle caresses; but very few of the poor little orphans knew what I meant at first, though some of them soon learned. Is it not sad that a baby of six months or a year should never have learned to smile—never have jumped and danced and cooed in any woman's arms? For often the Hospital nurse has two or three little waifs to feed, and bathe, and dress, and constantly attend to. They are not her own, and in a few months will pass from her care. Instinctively she steals her heart against them, lest she may suffer at parting. I am quite satisfied that these unhappy foundlings almost as often die for want of love and caressing, as for want of their natural food and other hygienic conditions.

Before you dissent, reader, from this, reflect on the subject awhile. We constantly assure adults that "cheerfulness is a great aid to digestion;" that "a mer-

ry heart is a continual feast;" that "he who laughs can commit no deadly sin;" and "there is no real life but cheerful life." At the same time we are well aware that unhappiness and depression of spirits will reduce the vitality of the strongest persons, and in time greatly impair their health.

Happiness not Controlled by Reason.

Reason has nothing to do with this state of mind, for the cultivated reasoning powers will fight against it—often without avail. Happiness and unhappiness are *emotional states*, induced by sensation and perception. Sensation begins at birth; perception soon after, according to the degree of inherited mental activity and power—and how soon the emotions are developed, we may know when we perceive the first manifestation of the emotion of fear, by the infant.

From that moment let us make our babies happy, and manifest our affection by the tender caresses and brooding embraces prompted by natural mother-love; undeterred by cold and selfish intellectual arrogance, sneering about the "little animal, with only animal wants;"—since we have proved that even this young animal has a sensitive, emotional spirit, which must be duly cared for to keep it in good physical health.

A Problem for American Women.

The following is an extract from a letter from Jean Ingelow to Lucy Stone Blackwell, of Boston:

"You have, I venture to think, more than one problem to work out in America, on which, in a great degree, depends the welfare of women. In one of these I take a keen interest, and I hope to see you settle it for yourselves and for us. I want you to discover how domestic work is to be combined with high culture.

So long as household work is thought degrading (and nowhere is this so much the case as in America), there can never be anything like universal education; there must always be some who work all their lives, because others will not work at all. It is to be one of the great things that you Americans, I believe, are raised for, to teach the world how this is to be done; but the teachers can never be those who are not obliged to work at all.

How to make clear-starching and ironing graceful and pretty occupations, and such they were thought by our great-great-grandmothers, how to keep a house clean, and to assist even in a kitchen without the least sense of being lowered, or the slightest personal deterioration, might surely be managed if women gave their minds to it—if more delicate machinery was invented for helping them, and if it could even be made the fashion for all women, young or old, to pride themselves on their domestic skill."

ARE YOU CAT-FOOTED?

DON'T get huffed, please! I do not wish you to specify the shape of your toes, and the length and sharpness of your toe-nails; I am not making any investigations into the conformation of your foot; I simply want to know if you are nervously averse to getting your feet wet. In nine cases out of ten, "Yes!" will be my answer; to which I shall say, "Well, then you are cat-footed." It is the most expressive of terms to indicate a dread of wet feet. Puss and yourself are alike in that respect. Just watch her when she comes to a wet or muddy place, and see how she hesitates, like the daintiest of dames, before crossing it. If possible, she will go around it, or even turn back and take another road. If compelled to go over it, she tip-toes, like any prettily-shod young miss, and shakes her paws in a manner indicative of thorough disgust, when she has gotten safe over. But, as a rule, puss is not seen abroad in wet weather. She wisely stays under cover, if she can. No doubt she thinks regretfully of that famous ancestor of hers who wore boots, and envies you your India-rubber over-shoes, of which more a little further on.

But Puss and yourself differ, in that she only dreads momentary inconvenience, while wet feet are associated in your mind with various kinds of colds. You are perfectly right to avoid getting your feet wet, when you consistently can; but you are not justified in sacrificing more important points to this decision. At any rate, let me beg of you not to make wet feet a bug-bear of your life, if you expect to have any liberty of movement while it lasts; and don't, I entreat you, hang your hopes upon over-shoes. Use them discriminately, but beware of making yourself their slave.

As a rule, for ordinary wet walking in winter, good thick calf-skin boots or shoes, lined with some warm woolen stuff, and with soles an inch thick, have no superiors. In summer shoes should be of the same calf-skin, with the same thick soles, but without the warm lining.

For habitual use this is the very best walking shoe for both sexes; and for all ages.

A shoemaker who knows his business can make them to look as handsomely as the most stylish shoes worn; and you have usually the advantage of not having to disfigure your feet and weigh them down with an additional pair of shoes. The comfort of locomotion greatly depends upon being as lightly shod as is consistent with the protection of the feet from the weather. Those who walk from their homes to their offices, to remain in them all day, will object to a pair of damp, muddy, or untidy-looking shoes after they are housed; and they are right. But the fact that wearing walking shoes, without over-shoes, obliges you to remove them as soon as you come into the house for any length of time, is one of the best arguments in their favor. Anybody who has tried keeping one pair of shoes for the house and another for walking, will never again want to keep on the same pair all day, in-doors and out of doors. The change is very grateful to the feet when heated or fatigued. It is one of the surest means of avoiding all diseases of them. The very act of removing the shoes for a few seconds, and thus exposing the feet to the air is beneficial. Then you put on a fresh pair that are not heated or damp, and your feet feel refreshed and cured of their fatigue; while, if you keep the same pair on all day, they are more or less uncomfortable.

But when you have to *wade* instead of walking, India-rubber boots may well come into play. Even to Arctic over-shoes I do not object, when the glassy appearance of the pavement indicates danger to life and limb. But they should be worn under protest, and not habitually. Nothing can be more debilitating to the feet. Worn often, and long at a time, they make them unnaturally tender, by inducing constant perspiration. Hence, sore corns, and inflamed bunions and aches in the feet on every little pro-

vocation. Worse than all, a chronic predisposition to take cold. I believe I would rather get my feet wet half a dozen times a day, and go through all the worry of sponging them, and putting on clean stockings and dry shoes, than to suffer this. There are two things to be done when you get your feet wet; and the prompt doing of either will insure you against taking cold. First, go straight and take off of them every wet or damp thing, bathe them in cold water, and rub hard till they are warm and dry; then put on clean stockings and perfectly dry shoes, and take care to keep warm. Secondly, if you can't do this at once, walk till your feet are dry, and on the same night be sure to sponge them with cold water and rub well. It is idiotic to get into a car, or any other vehicle, with wet feet, unless you have a fire or foot-warmer to dry them by. But if you can get them dried thoroughly before you become chilled, you will not be apt to take cold. Colds from wet feet are taken by sitting down and allowing yourself to get chilly. It is always best to keep in action till the circulation is completely restored.

Perhaps the best thing of all to do is to overcome one's feeling of cat-footedness. The imagination has much more to do with our bodily ailments than most of us imagine. A cold and wet feet are indissolubly associated in most minds. You see a puddle that you must cross: "Now, I shall get my feet wet and have a cold!" You plunge through, your mind in the meanwhile occupied with the most dismal forebodings. Of course, you get wet; and equally, of course, you take a cold, since you have made up your mind to do so, and do not take any precautions against it. You creep along, snail-like, for the remainder of your walk, or get into a car, and shiver, and soon begin to sneeze. You think it is natural that you should have headache and fever next day, that you should coddle yourself, and explain to your sympathizing friends, "I got my feet wet, and have taken cold!"

Now, all this is very stupid, as you

will find, if you will but stop to consider a moment.

Why, I wonder, is humanity so constitutionally averse to that ounce of prevention which is worth a pound of cure?

Had you but braced yourself for an encounter with that puddle; if you had hopped over it spryly, saying at the same time to yourself, "Pooh! pooh! I know I am getting my feet wet; but I can get them dry again, and it won't kill me!" and if you had walked along briskly till they were dry, and toasted them at the fire the first chance you got, and had been a little more careful than usual about draughts for the rest of the day, who believes you would have taken cold? Not I!

All the other remedies are good; but a determined will and a little foresight are the best of all panaceas for incipient disease. Some people hardly ever get sick, just because they *will not*; while others succumb at the least provocation, because they are weak of will, or do not bring their wills to bear upon the obstacle before them. HOWARD GLYNDON.

Interesting to Topers.

The *Financial Reformer*, writing on this subject remarks that Dr. Hodges, of Belfast, has publicly stated that a bottle of whiskey, described as a fair sample of the liquor sold in low-class public-houses, was heavily adulterated with naphtha, Cayenne pepper, and vitriol; that another sample consisted almost entirely of naphtha, with a slight coloring tinge of genuine whiskey; and that another charming compound was composed of Cayenne pepper, vitriol, spirits of wine, and blue-stone, which could be produced at the rate of a penny per gallon. A writer in the *Scientific Review*, some three or four years ago, enumerated among the multifarious ingredients for the adulteration of ale, beer, and porter, cream of tartar, alum, green vitriol, copper, lead, pyritic acid, cocculus indicus, grains of paradise, coloring matters of various descriptions, quassia, and other cheaper and more hurtful bitters, ledum palustre, myrica gale, and datura stramonium; besides liquorice, molasses, coriander, capsicum, caraway-seeds, salt, horse-beans, etc., etc. Hence, though the honest products of barley, hops, and the vine may have much to answer for, they are debited with a vast amount of evil which is really occasioned by noxious, and, in some instances, murderous substitutes for them. One of the multifarious recipes for fraudulent concoctions, given in a book published for the guidance and assistance of publicans and vintners, winds up with "A pinch or two of *oxalic acid*" does something or other, we forget exactly what, but it is something in the way of improvement!

CONSTIPATION AND ITS CURE.

As this is a disease that affects probably one-half of the adult population of this country, and is the forerunner of many other diseases, it is well to understand it, and how it can be avoided.

Its first manifestation is a lack of natural movement in the lower part of the alimentary canal. The waste matter that ought to pass off regularly and easily at least once a day, is retained not unfrequently for several days. The unnatural accumulation would very soon be painful and burdensome, but that nature undertakes to dispose of it in other ways. The fluid portions of the fecal mass are reabsorbed into the blood and discharged through the lungs, skin, and liver, giving to the breath the horrible odor one might expect from such a source, to the skin the vile color so often seen, while it often so overtaxes the liver as to bring on liver complaint. Indeed, as all these organs have their own duties to perform, they cannot long perform this extra work without injury; nor can they do it effectively. The blood is not made so pure by this means as it would be if the impurities were carried off promptly, according to the first intention of nature; while the bad blood develops almost any disease to which the system may have a tendency. So diseases of many kinds spring from this cause, besides those which result from the effort made at last to throw off the impacted residuum.

The principal causes of this derangement are lack of exercise and improper diet. A certain amount of exercise is necessary to the healthy action of the entire physical organism, and probably there is no diet which will keep the system right in this respect without some active exercise. This is one reason why sedentary people suffer so much from this complaint. But very many suffer thus whose exercise would be sufficient were their diet right. One of the most common wrongs is the use of concentrated food. There is a popular notion that nutrition is all we want, and that if

we could get that by itself, we should have a model food. So we have all our flour bolted, and eat butter and cheese and sugar, and reject the skins and seeds of fruits, and flatter ourselves we are living very delicately. We do not know enough about physiology to be aware that we need these coarser and less nutritious elements to make up a bulk and a roughness which shall incite to natural action this lower part of the alimentary canal, and so pass off the entire waste matter promptly and leave the system healthy, the blood pure, the breath sweet, and the skin clear, the truly delicate results which every one should desire.

Nature has mixed and proportioned our food well for us, and if we attempt to separate and concentrate it, with the idea of taking only the best, we in our ignorance cheat ourselves, and suffer consequences of which we rarely guess the cause. Those articles of our daily food which most surely produce constipation are, firstly and mostly, bolted flour in all its shapes, then cheese, milk, tea, rice, and sugar; while those which promote proper action are wheat, corn, rye, and oat-meal, and fruits taken with the regular meals.

It is a mistaken notion that looseness and constipation require different articles of food. They both spring from weakness of some part of the alimentary canal, and, indeed, often alternate with each other. Good, wholesome food, which will strengthen the whole system, will help either form of weakness, though any considerable changes in the diet may require a cautious introduction. Chronic diarrhoea has often been cured by a diet of unbolted flour and fruits. These do not act like medicine, to run through and clear out the impacted mass, but like nourishing food, to build up and strengthen every part, and to keep it in healthy action.

In the case of inveterate constipation some months may be required to secure regular and continued healthy action. Kneading the bowels gently, or having

it done by an attendant fifteen or twenty minutes every morning, is of great benefit. Prompt attention should be paid to the calls of nature; but violent straining should be avoided. If kneading alone does not prove sufficient, use the syringe with warm water; though that should not be used very frequently. Aim at producing the movement at a fixed hour

each day, whenever it seems to be most easily accomplished, generally after breakfast, the motions of the stomach in digestion being then naturally extended to the whole alimentary canal. For this reason it is desirable to have the meals at regular hours. Other habits, those of rising and exercise, should also be as regular as possible. †

DREADFUL MELANCHOLY.

BY R. T. TRALL, M.D.

THE New York *Tribune*, for March 19th, 1873, contained the following suggestive paragraph:

"There is a melancholy Dr. Trall, who announces in a Philadelphia newspaper that we are approaching a climax of a pestilential period. From 1880 to 1885, Jupiter, Saturn, Uranus, and Neptune will come nearer the earth than they have been for eighteen hundred years. The result will be, as the Doctor says it has been before, that we shall have all manner of unpleasantness—plague, famine, and awfully hot and cold weather. One planet would have been bad enough—now we are to have four in combined approximation; and, unless we adopt strict sanitary measures, we may expect a calamity indeed. Gluttons, tobacco-chewers and smokers, and tight-lacing young ladies will never survive the perihelion of all the large planets of the solar system. So says the dreadful Dr. Trall."

In Youman's "Chemistry," page 419, occur the following words: "Not only life but all the grand phenomena of force with which we are familiar upon this planet, have their origin in the sun. His radiations govern the movements of terrestrial atoms, and in these the movements of masses take their rise. Should that body cease to give out emanations, the earth would speedily lose its heat."

That the coincident perihelion of the four large planets of the solar system would more or less modify the temperative and electrical conditions of the earth is a proposition too obvious to need ar-

gument. And when it is recollected that the earth arrests but one 2,300,000,000th of the whole amount of force that the sun emits, the disturbing influences of the conjoint approximation of these large planets to the sun will be still more apparent.

The solar spots, recently ascertained to be vast cyclones extending 40,000 miles from the surface of the sun, have lately been recorded as coincident with cyclones in the Indian seas. The New York *Times*, of a late date, says: "The later theories of Piazzi, Smyth, Wolf, Herschel, and others, suggested a connection between the periodic frequency of solar spots and the cycles of our hot and cold years, and our heaviest and most destructive and terrestrial storms."

The *Atlantic Monthly*, for March, 1873, says: "We have already had something to say about the spots on the sun, and their curious relations to terrestrial phenomena. We have seen that the occurrence of the aurora borealis and the cyclical disturbances of the compass-needle are determined by those gigantic solar storms which give to the disc of our great luminary its spotted appearance. We have also given some of the facts which seem to indicate a remarkable coincidence between the periodicity of the spots and the periodicity of Asiatic cholera."

In Webster's "History of Pestilences," the perihelion periods of Jupiter, for several hundred years, are shown to be coincident with pestilential periods.

In Hecker's "Epidemics of the Middle

Ages," page 52, the author says: "Of the astral influence which was considered to have originated the 'Great Mortality,' physicians and learned men were as completely convinced as of the fact of its reality. A grand conjunction of the three superior planets, Saturn, Jupiter, and Mars, in the sign of Aquarius, which took place, according to Guy de Chauliac, on the 24th of March, 1345, was generally received as its principal cause."

Hecker estimates the number of persons who perished in Europe during the prevalence of this perihelion epidemic—a period not exceeding six years—at one-fourth the entire population of Europe. He records, also, terrible storms and floods, one of which destroyed one hundred thousand lives, and of which there has been no parallel in history.

In the New York *Medical Journal* for June, 1872, M. S. Knight, M.D., in an elaborate article of twenty-five pages, traces the historical connection between the perihelion periods of the large planets and the prevalence of pestilences for several hundred years, and shows, from indisputable historical data, that the most pestilential periods ever known on the earth were coincident with the conjoint perihelion of several of the large planets.

The New York *Herald*, a few weeks since, summed up, in a half-column article, the disasters by fire and flood, the heats and colds, the tempests and shipwrecks, of the last year as having been unprecedented,

I subjoin the application which was made of these facts in the article which appeared in the *Philadelphia Star*:

There is, however, a practical view of this subject of immense importance. Unless we can point out a remedy or indicate a preventive, it is worse than useless to alarm the people with apprehensions of coming evils. It is in the history of all pestilences that were ever known, as it is a part of the history of the ever-prevailing typhoid and eruptive fevers, pneumonias, diphtherias, choleras, and summer complaints of our times, that

those who are most predisposed to sickness suffer most of whatever may be the epidemic influence.

The plagues and pestilences of the Old World, and the ancient cities, (some of which have been more than once nearly depopulated,) were always more fatal as sanitary conditions were worse. In the great cities, narrow, sunless streets, dark alleys, filthy gutters, crowded tenement houses, cesspools and accumulated offal, and the countries, the location of pigstyes, barn-yards, stables and privies to the dwellings, were the special causes of mortality.

The general sanitary condition of the world is much better now than it was two or three centuries ago; but there is great room for improvement in every city and village, indeed, in every rural district, if not on every farm. And there is quite as much room for improvement in the matter of personal habits everywhere. Those who have the most vital stamina and the most hygienic habits will be among the survivors of the pestilential period, if it comes; if it does not, they cannot be the losers by "taking heed unto their ways."

The dissipated, the glutton, the debauchee, may calculate on being among the first victims. Young men who devitalize themselves by tobacco-using, and young ladies who destroy one-half of their breathing capacity by fashionable dress and tight-lacing, will never survive the perihelion of all the large planets of the solar system. And perhaps it will be best that they should not.

FEMALE MEDICAL STUDENTS. — The Medical University of Zurich, Switzerland, reports an attendance at its lectures during the season of 1872 of two hundred and two students, of whom one hundred and fifty-one were male, and fifty-one females. This university has had six years' experience in the instruction of males and females in the same classes, and the Faculty assert that the presence of female students in the theoretical and practical course has given rise to no disturbances whatever. The lectures, anatomical demonstrations, and clinical practice are gone through with without regard to the female students present, and as thoroughly as before an audience composed solely of males. The above report was made in answer to an inquiry from the medical faculty of Wartzburg

DISEASES OF THE EYE.—ILLUSTRATED.

CHAPTER V.—*Continued.*

WOUNDS OF THE IRIS.

INCISED wounds of the iris, whether accidental or surgical, are generally not dangerous; injuries by blows or foreign bodies, which contuse, tear, and lacerate the structure, are followed by more or less of inflammation. A blow on the eye may occasion a depression of a portion of the iris, the depressed portion being folded back on itself, causing the pupillary circle to disappear; in this case the lens is generally dislocated or diminished in size. The only treatment required in these cases is tepid or cool applications, according to the degree of morbid heat and inflammation. If prolapsus of the iris occur, the directions under the heading of "Wounds of the Cornea," are sufficient.

Very small foreign bodies lodged in the iris, as specs of metal, splints of glass or wood, etc., occasion much irritation, and may lead to extensive disorganization. They should, therefore, be promptly removed; and, if need be, by cutting out a segment of the iris.

TUMORS OF THE IRIS.

Injuries to the iris may be followed by the formation of cysts, which appear as small, transparent vesicles on its surface. They may be removed by excision.

Nævi of the iris sometimes appear in the form of small black patches. In rare cases they may blend and form a tumor of considerable size. Excision is the remedy.

Cancer is rare, if it ever exist, as a primary affection of the iris; but cancers of a melanitic character, have affected it by extension from adjacent structures. There is no remedy short of excising the entire eyeball.

CONGENITAL ANOMALIES.

Complete or partial absence of the iris (*iridiremia*) may be hereditary. This is sometimes accompanied with opacity, or displacement of the lens. The defect

of vision resulting may be partially remedied by the use of stenopalic spectacles.

Coloboma (cleft iris) or partial deficiency of the iris, is due to imperfect development, and varies in form and degree. In some cases there exists more than one pupil (*polycoria*), and sometimes the position of the pupil is eccentric (*corectopia*). These abnormalities, of course, affect vision more or less; and are only to be remedied, when practicable, by proper glasses.

OPERATIONS FOR ARTIFICIAL PUPIL.

The instruments commonly employed in the various operations for forming an artificial pupil, are: A silver wire speculum for holding the eyelids apart; a pair of forceps for fixing and steadyng the eyeball; a broad lance-shaped knife; a narrow cataract knife; the iris forceps; the iris scissors, and a pair of scissors curved on the flat side.

IRIDECTOMY.

The manner of performing this operation, as explained by J. Solberg Wells, is as follows: "The patient is to be placed in the recumbent position, either in bed or on a couch, the head being slightly elevated. Unless there be very exceptional reasons to the contrary, chloroform should always be administered. I prefer to use it in all cases of iridectomy; especially if the eye is acutely inflamed, for the operation is then very painful; and, however courageous and determined the patient may be, he may find it impossible to control some sudden involuntary movement of the eye or head, which may endanger the result of the operation, or even imperil the safety of the eye. But if chloroform is employed, it should be given so as to anaesthetise the patient completely, and render him quite passive, otherwise he may prove far more unruly than if none had been administered; and the operation is of so delicate a nature that absolute quietude of the eye is necessary. If sickness should supervene, the further steps of the operation must be delayed until this has passed away."

Let us now suppose that an outward iridectomy is to be performed upon the right eye for the cure of glaucoma. If the operator is ambidexter, he may seat himself upon the couch or bed in front of the patient, and make the incision with his left hand. If not, he should place himself behind the patient. The eyelids having been opened to the desired extent by the stop-speculum, the operator should seize with a pair of fixing forceps the conjunctiva near the inner side of the cornea, exactly opposite to the place where the incision is to be made. The straight iridectomy knife is then to be thrust into the sclerotic, about half a line from the sclero-corneal conjunctiva (Fig. 16), and, the handle of the

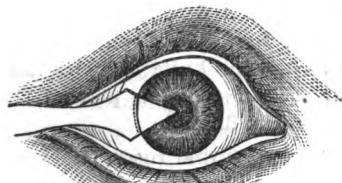


FIG. 16.

instrument being laid well back towards the temple, the point is to be passed into the anterior chamber at its very rim, and carried on slowly and steadily towards the opposite side until the incision is of the desired extent. The knife is then to be slowly and gently withdrawn, the aqueous humor being allowed to flow off as slowly as possible, so that the relief of the intra-ocular pressure may not be sudden, otherwise this will cause a rapid over-filling of the intra-ocular blood-vessels, and perhaps a rupture of the capillaries of the retina and choroid, producing sometimes very extensive hemorrhage. When the knife has been nearly withdrawn from the anterior chamber, the handle is to be somewhat depressed, so that the upper edge of the blade is slightly elevated, and the upper angle of the internal incision should then be enlarged to a size corresponding to the external incision. The same proceeding may be repeated downwards, or the incision may be enlarged to the required extent

with a pair of blunt-pointed scissors curved on the flat, the one point being introduced just within the anterior chamber, and the incision then enlarged upwards and downwards.

On the completion of the section, the forceps are to be handed over to an assistant, who should, if necessary, fix the eye, being careful at the same time not to press or drag upon the eyeball, but simply to rotate it gently in its bed. If the iris does not protrude through the lips of the wound, the operator should pass the iris forceps (closed) into the anterior chamber, and then, opening them somewhat widely, he should seize a fold of the iris, and draw it gently through the incision to the requisite extent, and cut it off with the scissors quite close to the lips of the wound (Fig. 17). The ex-

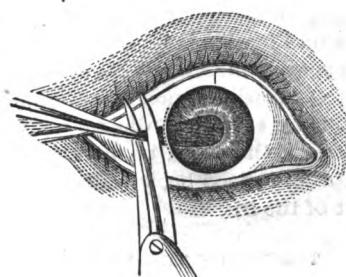


FIG. 17.

cision of the iris may be done either by the operator himself, or by an assistant. In the former case, the iris forceps should be held in the left hand, and the scissors in the right, as it requires some practice to use the latter well with the left hand. If a portion of the iris protrudes into the incision, there will be no occasion to introduce the forceps into the anterior chamber, but the prolapsed portion is to be seized, and, if necessary, drawn forth somewhat further and divided.

The portion of iris may be excised with one cut, or else this may be done according to either of the following modifications introduced by Mr. Bowman:

The protruding portion of iris may be drawn to the right-hand angle of the incision, and partly divided close up to the

angle, the other portion being then gently torn from its ciliary insertion (slight snips of the scissors aiding in the division), and drawn to the opposite angle, to be there completely cut off. This mode of operating is illustrated in Fig. 18, *a*, the prolapse drawn down to the

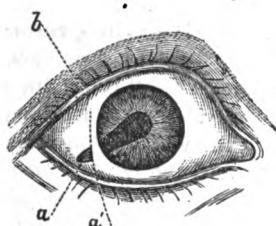


FIG. 18.

lower (right-hand) angle, *a*, of the incision, where the inferior portion is to be divided, and the other drawn up in the direction of *b*, to the upper angle of the incision.

Or again, the prolapse (Fig. 19, *a*), may

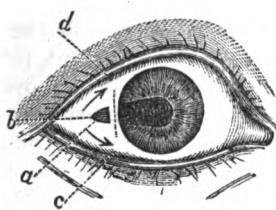


FIG. 19.

be divided into two portions at *b*. The lower portion is to be drawn in the direction of *c*, to the lower angle of the incision, and snipped off. The upper portion is then to be drawn in the direction of *d*, and also divided. There is, however, this disadvantage in this mode of operating, that, if there is much hemorrhage, the upper portion of iris is somewhat hidden, or it may slip back into the anterior chamber, and have to be searched for.

But either method, if well accomplished, will yield an excellent artificial pupil. The iris will be torn away quite up to its ciliary attachment, and the pupil will consequently reach quite up to the periphery (Fig. 20).

If there is any hemorrhage into the anterior chamber, the blood should be per-

mitted to escape before coagulation. A small curette is to be inserted between the lips of the wound, slight pressure being at the same time made upon the eyeball with the fixing forceps, so as to facilitate the escape of the blood. But if the latter does not escape readily, it should not be forced out, but be permitted to remain, as it will soon be absorbed, especially if a compress bandage is applied.

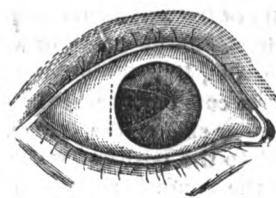


FIG. 20.

I have described the mode of performing iridectomy in the outward direction, as this is the easiest, and it may therefore be wise for a perfectly unskilled operator to make it at first in this direction, until he has gained a certain degree of practice and dexterity, and then to pass over to the upward or inward incision. The operation in either of the latter directions is certainly more difficult than the temporal, on account of the prominence of the nose or upper edge of the orbit, and the consequent necessity of employing a knife bent at a more or less acute angle, which an unskilled operator may find somewhat difficult to keep quite flat.

The size of the iridectomy and the direction in which it is to be made, should vary with the purpose for which the operation is performed. Thus, if it be done solely for the purpose of arresting inflammation, or of diminishing intra-ocular tension, it should, if possible, always be made directly upwards, for then the upper lid will cover the greater portion of the artificial pupil, and thus not only hide the slight deformity, but also cut off much of the irregularly refracted light. In these cases, more especially in glaucoma, the incision should be made somewhat in the sclerotic, so that the iris may

be removed quite up to the ciliary insertion, and should be of a sufficient size to permit of the excision of about one-fifth of the iris. We find that if both these requirements are not fulfilled, the beneficial effect of the iridectomy in checking the inflammation and the increase in the tension is either greatly diminished or not permanent.

But when iridectomy is performed simply for the purpose of making an artificial pupil through which to admit the light, as in opacity of the cornea, lamellar cataract, etc., it should be made of a much smaller size, and, if possible, inwards, as the visual line cuts the cornea slightly towards the inner side of the centre. But with regard to the position, we must be guided by the condition of the cornea, endeavoring to make the artificial pupil opposite to that portion of the cornea which is most transparent, and most true in its curvature. The incision should in these cases be slightly in the cornea, so that a narrow belt of iris may be left standing, and the irregular refraction produced by the periphery of the cornea and of the lens, and consequent confusion of sight, be diminished. For the same reason, the iridectomy should not be large, otherwise its base will expose a considerable portion of the edge of the lens. Hence the incision should be made with a narrow iridectomy knife, or even with a broad needle. If a very small in-

cision is made, the iris may be drawn out with a blunt silver or platinum iris hook, instead of the forceps, just as in the operation of iridodesis. This mode of operating is also indicated in those cases in which there are extensive adhesions between the edge of the pupil and the anterior capsule. In such cases, the incision should, if possible, be made at a spot corresponding to a point at which the edge of the pupil is unadherent, so that the hook may seize this portion of the iris. If the whole edge of the pupil is adherent, and the iris is thin and rotten, it is often impossible to obtain a good sized pupil, for the iris breaks down, and tears between the forceps, and only small portions can be removed piece-meal. Or again, the adhesions of the pupil to the capsule may be so firm, that they resist the traction of the forceps, and this portion of the iris remains standing. In fact, we have performed the operation, which Desmarres has recommended in such cases, and has termed "iridorrhesis." A portion of the iris is excised, leaving the adherent pupillary edge standing. In order to overcome this difficulty in seizing the iris, Liebreich* has devised a pair of iridectomy forceps, in which the teeth are so situated that the surface in which they grasp is turned at a right angle; in this way they can firmly seize the iris, just as a pair of fixing forceps.

ADVICE TO YOUNG LADIES.

[UNDER this interesting and suggestive title, a respectable and influential religious paper, published in an ancient and sensible city gives some wholesome truth, stated in terms more terse, perhaps, than courteous, which we copy, indorsing the sentiments most heartily. We beg to say to the girls, in a whisper, ten thousand good young men are waiting to find just such girls as you are, who have plainer and less expensive habits, and whom, as wives, they might hope to be able to support. "A word to the wise

is sufficient." Ed. SCIENCE OF HEALTH.]

First, you are perfect idiots to go on in this way. Your bodies are the most beautiful of God's creation. In the Continental galleries I always saw groups of people gathered about the pictures of women. It was not a passion; the gazers were just as likely to be women as men; it was because of the wonderful beauty of a woman's body.

Now, stand with me at my office window, and see a lady pass. There goes

* Knapp and Moos' Archi., I., 1, 22.

one! Now, isn't that a pretty-looking object? A big hump, three big lumps, a wilderness of crimps and frills, a hauling up of the dress here and there, an enormous, hideous mass of hair or bark piled on the top of her head, surmounted by a little flat, ornamented by bits of lace, birds' tails, etc. The shop-windows tell you all day long of the paddings, whalebones, and steel springs which occupy most of the space within the outside rig.

In the name of all the simple, sweet sentiments which cluster about a home, I would ask, how is a man to fall in love with such a piece of compound double-twisted, touch-me-not artificiality as you see in that wriggling curiosity?

Secondly, with the wasp-waist squeezing your lungs, stomach, liver, and other vital organs into one-half their natural size, how can any man of sense, who knows that life is made up of use, of sense, of service, of work, take to such a partner? He must be desperate, indeed, to unite himself for life to such a fettered, half-breathing ornament.

Thirdly, your bad dress and lack of exercise lead to bad health, and men wisely fear that, instead of a helpmate, they would get an invalid to take care of. This bad health in you, just as in men, makes the mind as well as the body faddled and effeminate. You have no power, and use big adjectives, such as "splendid." No magnetism! I know you giggle freely, "awful," but then this don't deceive us; we can see through it all. You are superficial, affected, silly; you have none of that womanly strength and warmth which are so assuring and attractive to man. Why, you become so childish and weak-minded that you refuse to wear decent names even, and insist upon baby names. Instead of Helen, Margaret, and Elizabeth, you affect Nellie, Maggie and Lizzie. When your brothers were babies you called them Bobby, Dickey and Johnnie; but when they grow up to manhood, no more of that silly trash, if you please. But I know a woman of twenty-five years, and she is as big as both my grandmothers put together, who insists upon being called

Kitty, and her real name is Catharine; and although her brain is big enough to conduct affairs of State, she does nothing but giggle, cover up her face with her fan, and exclaim once in four minutes, "Don't, now! you are real mean."

How can a man propose a life-partnership to such a silly goose? My dear girls, you must, if you get husbands, and decent ones, dress in plain, neat, becoming garments, and talk like sensible, earnest sisters.

You say that the most sensible men are crazy after these butterflies of fashion. I beg your pardon, it is not so. Occasionally a man of brilliant success may marry a silly, weak woman; but, as I have heard women say a hundred times, that the most sensible men choose women without sense, is simply absurd. Nineteen times in twenty sensible men choose sensible women. I grant you that, in company, they are very likely to chat and toy with these overdressed and forward creatures, but they don't ask them to go to the altar with them.

Fourthly, among young men in the matrimonial market, only a small number are independently rich, and in America such very rarely make good husbands. But the number of those who are just beginning in life, who are filled with a noble ambition, who have a future, is very large. These are worth having. But such will not, they dare not, ask you to join them while they see you so idle, silly, and so gorgeously attired. Let them see that you are industrious, economical, with habits that secure your health and strength, that your life is earnest and real, that you would be willing to begin at the beginning in life with the man you would consent to marry, then marriage will become the rule, and not, as now, the exception.—*Boston Congregational*.

PERSONAL BEAUTY.—If man or woman wishes to realize the full power of personal beauty, it must be by cherishing noble hopes and purposes; by having something to do and something to live for which is worthy of humanity, and which, by expanding the capacities of the soul, gives expansion and symmetry to the body which contains it.

SCIENCE AND TEMPERANCE.

IN spite of the terribly destructive effects of alcoholic liquors upon the race, the majority of mankind has always held to the opinion that they were good if used rightly. One would naturally suppose that the mischief wrought by alcohol would have led to the closest possible scrutiny of it by scientific men. Little or nothing, however, seems to have been done in that line until, roused by its spirited condemnation by temperance people, some scientists undertook its defence. They attempted to show how it did benefit the human system by means of the most elaborate and exact experiments, when, to their amazement, they utterly failed to do it. They expected to find that it was decomposed, and its elements used up in the system; but instead, they found that it was expelled unchanged. It had given nothing to the system, and so could be of no benefit to it, and the strength of the system had been taxed for its expulsion. The logic was unanswerable; and yet they insisted that it must benefit, showing thereby the strength of their own prejudices against the truth they had discovered. Other observations confirmed their experiments. Post mortem examinations find alcohol unchanged in the brain and other parts of the system, with no signs that any of it has been used in any way.

This was a terrible blow to the apologists for alcohol. But the prejudices of the world were still on their side, and so many theories were devised to meet the emergency. If it could not be digested, it might help digestion. If it was not food, it might be "negative food." If it did not build up the tissues, it might preserve them. One man said that two ounces could be taken without the ordinary symptoms of intoxication, and therefore that quantity must be good (sic!) Another was equally positive that one ounce and a half marked the line of safety; while it is well known that a teaspoonful of wine will "fly to the head" of some, and the merest taste is enough

to rouse the demon of desire in others. These cases were glibly met by saying that the individuals were to blame, and not the poison. Some could use it advantageously, while others could not use it at all; and there was no way of finding out who could use it and who could not, but by trial, as if we had not been trying it for centuries!

So we have had any number of contradictory explanations and apologies for it by all sorts of men, but mostly by the medicals who, under cover of their diplomas, sometimes dare to do and say the most absurd things. It has, however, been reserved for one of the younger of this class to do the daring thing of gathering all these absurdities and contradictions together within one pair of covers, and giving it to the world as a temperance book! This book is likely to give some transient popularity. All the tipplers, as well as some others who have not been able to see through the alcoholic muddle, will find some of these numerous theories that just chime in with their prejudices. But all the prominent temperance people reject the book indignantly. We expect a like fate for his fortnightly periodical, with the equally pretentious title of "Hygiene," advocating the same views. It will please a certain class who are anxious to find excuses for their tippling practices, and make them appear respectable; and in this they will be helped by the fact that he is supported by respectable publishers. It seems, however, that even a respectable publisher has not been able to make his "Family Physician" a success. It failed, we are told, on account of these same reprehensible views of stimulants and narcotics. The same fate is inevitable for his and all other publications advocating like views, just as soon as the people become physiologically intelligent enough to see through such fallacies. And this it shall be our aim to accomplish. This is our hope of safety from the curse of intemperance and all its apologizers.

J. C.

HOW TO MAKE LEAN FOLKS FAT.

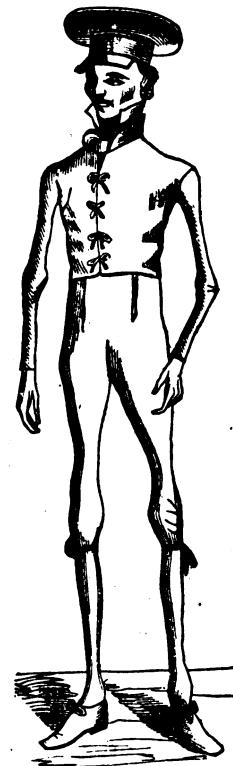
THE cut represents, probably, the leanest person ever seen alive—Calvin Edson—who was once on exhibition at Barnum's Museum. Many dyspeptics, however, approximate this condition. It is not uncommon for chronic invalids to emaciate until they are reduced to two-thirds of their normal weight, and in some instances to one-half. We have known dyspeptics, whose normal weight was one hundred and fifty pounds, reduced to seventy-five pounds; and we have known even such persons to recover health, strength, and their previous bulk and weight.

Leanness may be caused by insufficient food, or over-exertion, or both. But the usual cause is disease; the vital powers being more occupied in removing impurities and poisons, and overcoming abnormal conditions, than in digesting and assimilating nutrient material. In all fevers, and in all chronic diseases attended with preternatural discharges, as consumption, diarrhoea, etc., patients rapidly emaciate; while, in other forms of chronic disease, as in scrofula, dropsy, and other cachexies, they may become plethoric or corpulent.

Extreme leanness is always to be regarded, for all practical purposes, as a condition of indigestion; and the remedial plan* comprises the whole manner of life. Whatever invigorates the whole system, or any organ and function, is a remedy for leanness. Food that is simply fattening, as starch, sugar, soups, etc., do not restore the health; although they produce a temporary appearance of benefit. The patient wants structure instead of stuffing. He wants more blood, more bone, more muscle and nerve tissues. And these are only desirable from substantial aliments. Exercise is important, but it should never be fatiguing. Little and often is the rule for dyspeptics. Bathing is useful once or twice a week, but the temperature of the water should

be tepid, or only moderately cool. The patient should avoid exposure to the hot sun, and all places and exercises which occasion sweating. Those gymnastic and other exercises which bring the respiratory and abdominal muscles into play, are especially desirable, as rowing, horse-back riding, walking over rough ground, playing ball, billiards, ten-pins, etc.

The patient should eat all the plain



CALVIN EDSON.

nutritious food that he can assimilate. The most nutritious food in the world are the cereals and legumes—wheat, rice, rye, corn, oats, peas and beans. The grains may be made into unleavened bread and mushes. The sweeter fruits may be freely used as a part of each meal; and a large part of one meal per day should consist of the more nutritious vegetables, as potatoes, parsnips, beets, asparagus, etc. Those lean persons who are not accustomed to fruit, will find baked sweet

* See our new work, "Digestion and Dyspepsia, Illustrated," for fuller explanations.

apples a good addition to each meal to begin with. Oatmeal mush, with a slice of wheat-meal bread, and two or three baked apples, make a breakfast of which any lean individual may be justly proud;

and, if to these are added one or two of the vegetables above-mentioned, the dyspeptic will have a dinner that, if his other habits are correct, he may calculate on growing fleshy upon.

DISEASE AND ITS TREATMENT.—No. 5.

BY ROBERT WALTER, M.D.

The A Posteriori Argument.—Symptoms Analyzed.

In the present number we shall undertake to examine into the nature of disease through an analysis of its symptoms, a method the opposite of which we have heretofore employed. If our theory be correct, it will be equally apposite from whatever point of view; and, therefore, in order to make it as clear as possible, we enter upon the present mode of examination. The difficulty of comprehending the subject, because of centuries of false reasoning and false teaching regarding it, as well as because of its intrinsic abstruseness, requires of us that we exhibit it from as many angles of observation as may be. And in the interests of truth we ask of our readers careful study and critical examination.

That disease is not an entity—that it is destitute of objective existence, having neither form nor size, density nor weight, nor any other physical property, I think will be universally conceded. Certainly no man has ever seen it, and I believe no sane man ever expects to. Its symptoms are the only evidences of its existence; and hence they are a very important means of testing its nature and character. Let us, therefore, carefully analyze them and see what they teach.

The first important symptom of disease is disturbed circulation. This disturbance may be confined chiefly to the part affected as in local diseases; but in most cases, especially those which are serious, the disturbance is general. The pulse has long been recognized as the great index of the internal conditions of the patient. To the physician, it is an important indication of both the severity of the disease and of its locality. It has

many modifications just as conditions are varied and numerous, but it always indicates the vital states.

Now what does the pulse mean? It means, first and foremost, always and forever, *vital action*—the action of the living organic system. No matter what its character or how varied its manifestations, the pulse still remains the absolute evidence of action on the part of the vital forces. And its modifications always indicate the modifications of this action. The normal pulse indicates normal vital action, the abnormal pulse, abnormal vital action. In the one case we have health; in the other, disease; both indicated through the same channel, and both but modifications of the same force. There is no difference between them, except that in health the vital force flows unobstructedly, while in disease there are obstructions which vitality, in its attempts to operate through the usual channels, necessarily tends to remove. And this attempt is the essential disease, the obstructions being the cause, and the immediate effect being the symptoms.

Pain is another prominent symptom of disease. The nerves of sensation exist for the purpose of conveying to the brain and spinal cord, intelligence of the conditions of the body and its relation to external things. If these conditions and relations be normal—that is, healthful, the sensations will correspond; but if they are abnormal or diseased, the sensations will be changed in character, and usually more or less painful. All sensation is simply mental recognition through the nerves of sense. Pain is recognition of abnormal conditions, while normal sensation is a recognition of normal conditions. In the one case we have dis-

ease, and in the other, health;—opposite states represented by opposite sensations through the same channel. In both states the acting force is the same; the action differing, not because the force differs, but because its relations to external things are different.

In addition to pain, we have other symptoms expressed immediately through the nervous system, such as excitement, restlessness, tossing, tumbling, delirium, etc. Every physician looks upon these as symptoms of disease, and we call attention to them merely to show that they are the actions of the living system itself. Delirium is a symptom of disease, but it is at the same time the expression of action on the part of a vital organ—an organ which never acts except by virtue of its own inherent force. The conclusion, therefore, becomes irresistible that the symptom of the disease, delirium, and the expression of the vital organ, which is also delirium, is one and the same thing. And it is just as clear that the force that produces this delirium is the same in both cases, namely, vitality—*vis medicatrix naturae*—or “Nature” as we choose; and, therefore, that disease is simply a manifestation of this force, differing from health only because of different causes.

Increased heat is another prominent symptom of disease. What is heat? In physics it is universally conceded to be a mode of motion. It consists essentially in motion of the atoms of matter, and, according to Youmans, “the intensity of the motion determines the temperature.” There are various methods by which heat may be produced; such as combustion, friction, compression, percussion, etc.; but all these, not even excepting either chemical or vital action, may be described under the one term, friction. Now, “the heat of friction,” says Youmans, “depends, not upon the properties of the body acting, but upon the force spent in producing it.”

It is the expenditure of force, therefore, in the human system that produces its heat. With moderate expenditure we have moderate heat, increased expendi-

ture, increased heat, and *pari passu*. We reasonably conclude, therefore, that the man who is burning with fever is in this condition, because the *vital effort*, if not the force of vital action, is, in some direction greatly increased, while at the same time, the skin is so obstructed as to prevent exhalation of moisture, and consequent evaporation and cooling.

But why increased vital effort? Why in disease do we often have a greater expenditure of force than in health? That we do is proved by many considerations. The quickened pulse, the labored breathing, the rapid loss of strength, all tend to sustain the statement.

The reason of the increased effort is the increased demand, involving thereby increased expenditure. The system has become obstructed, and the disease is the attempt to remove that obstruction; requiring, of course, greater expenditure than if the obstruction did not exist. The effort may not be successful, but it is nevertheless made because the vital instincts have no choice but to obey the laws through which they exist.

Vomiting is clearly a vital action. So are purging, coughing, and sneezing. They are attempts on the part of the vital organs to rid themselves of obnoxious materials, or to be relieved of unhealthful conditions.

In addition to these positive symptoms of disease, we have many of a negative character, such as loss of appetite, general debility, inaction of bowels, skin, liver, kidneys, etc. These symptoms are, in some sense, the opposite of those we have been analyzing, and might, at first thought, seem to militate against our idea that disease is an action; but closely scrutinized, it will be seen that they offer no real objection. In saying that disease is an action, we do not claim that it is an action increased above the normal standard. The normal action of the organ may be vigorous, while the abnormal or diseased action is weak and fluctuating. All that we claim for disease is, that it is an action in some degree, and that it works as well as it can under the circumstances toward health; and that, whether

weak or strong, subdued or forcible, negative or positive, it is always an effort toward remedy.

Loss of appetite, constipation, torpidity of liver, etc., indicate deficient action in the particular organ, but not necessarily want of effort. In these cases the force is employed in some other direction. Where one organ is inactive, another may be over-active; certainly whenever force is employed in one part of the body in excess, some other part must be deficient. The positive condition always presupposes the negative; extra action here indicates deficient action there.

If there be a strong determination to the surface as in entonic fever, there must be decreased action, constipation, etc., in the internal organs. While the depurative or cleansing organs are exerting themselves energetically, as in fever, there is no force to be spared in preparing food for assimilation, because it cannot be used. The rubbish must be cleared away before the new structure can be reared, or the new material appropriated.

There is loss of appetite because there is no power to use food; and hence it should not be given. There is delirium—loss of muscular power, because the force is employed elsewhere; hence rest from labor is clearly indicated. If the bowels are inactive, it is because the force necessary to keep them at work cannot be had without withdrawing it from some other point; and hence the great danger of *forcing* action by purgatives. Many a man has been killed by a simple dose of Epsom salts or Jalap at a time when Nature was employing her forces in an attempt to bring matter to the surface, as in small-pox immediately previous to the eruption. And in cases of loss of appetite, serious mischief has been frequently done in "toning up the stomach" with medicines, thereby distracting the vitality from other important work. It behoves every man, ere he undertake to interfere with Nature's processes, to consider well the propriety of his actions; for even then, he may, if he does not desist, do irreparable injury.

THE DOCTOR'S STORY.

BY WILL. M. CARLETON.

I.

Good folks ever will have their way—
Good folks ever for it must pay.
But we, who are here and everywhere,
The burden of their faults must bear.
We must shoulder others' shame—
Fight their follies and take their blame;
Purge the body, and humor the mind;
Doctor the eyes when the soul is blind;
Build the column of health erect
On the quicksands of neglect;
Always shouldering others' shame—
Bearing their faults and taking the blame!

II.

Deacon Rogers, he came to me;
"Wife is a-goin' to die," said he.
Doctors great, an' doctors small,
Haven't improved her any at all.
Physic and blister, powders and pills,
And nothing sure but the doctors' bills!
Twenty old women, with remedies new,
Bother my wife the whole day through;

"Sweet as honey, or bitter as gall—
Poor old woman, she takes 'em all;
"Sour or sweet, whatever they choose,
Poor old woman, she daren't refuse,
"So she pleases whoe'er may call,
An' Death is suited the best of all.
Physic and blister, powder an' pill—
Bound to conquer, an' sure to kill!"

III.

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head.
Blistered and bandaged from head to toe,
Mrs. Rogers was very low.
Bottle and saucer, spoon and cup,
On the table stood bravely up;
Physic of high and low degree;
Calomel, catnip, boneset tea;
Everything a body could bear
Excepting light and water and air.

IV.

I opened the blind ; the day was bright,
And God gave Mrs. Rogers some light.

I opened the window ; the day was fair,
And God gave Mrs. Rogers some air.

Bottles and blisters, powders and pills,
Catnip, boneset, syrup and squills ;

Drugs and medicines, high and low.
I threw them as far as I could throw.

"What are you doing ?" my patient cried ;
'Frightening Death,' I coolly replied.

" You are crazy ! " a visitor said :
I flung a bottle at her head.

V.

Deacon Rogers, he came to me ;
" Wife is a comin' around," said he.

" I re'lly think she will worry through ;
She scolds me just as she used to do.

" All the people have poohed an' slurred—
All the neighbors have had their word ;

" 'Twas better to perish," some of 'em say,
" Than be cured in such an irregular way."

VI.

" Your wife," said I, " has God's good care,
And his remedies—light and water and air.

" All of the doctors, beyond a doubt,
Couldn't have cured Mrs. Rogers without."

VII.

The Deacon smiled and bowed his head :

" Then your bill is nothing," he said.

" God's be the glory, as you say !
God bless you, Doctor ! good day ! good day ! "

VIII.

If ever I doctor that woman again,
I'll give her medicines made by men.

MORAL.—People who are so selfish that they will not send for a physician until the patient is nearly past hope, and then grumble if he charges for advice, and gives little or no medicine, must expect that the doctors will learn to drug them, that they may seem to have a good excuse to charge a bill. Nature's remedies are cheap and abundant, and he is the best physician who knows how to work with nature and remove the obstructions to her willing efforts to produce a cure.

RULES FOR BATHING.

The following summary of the general rules applicable to all cases, is copied from THE BATH ; ITS HISTORY AND USES.

1. Never bathe soon after eating.
2. A full bath should not be taken less than three hours after a full meal.
3. Do not take any cold bath when in a state of chilliness or fatigue.
4. Always have the feet comfortably warmed, by fire, hot water, or exercise, at the time of taking any cold bath.
5. If inclined to headache, wet the head with cool water before bathing.
6. Never drink cold water just before bathing.
7. Do not eat soon after bathing. An hour should elapse after a full bath, and half an hour after a local bath before taking the meal.
8. Local baths, as hip, foot, etc., may be taken an hour after a light, and two hours after a full meal.
9. Patients who are able should exercise before and after bathing. If not able to exercise, and inclined to chilliness, they should cover up in bed for an hour after bathing.
10. No strong shock, by means of the shower or douche, should be made on the head.
11. After bathing, do not sit in a drought of cold air, nor allow the feet to become cold.
12. During the menstrual period, no cold baths should be taken.
13. Avoid all very cold or very hot baths in all cases of great debility, local congestions, or determinations of blood to particular parts ; also all processes which disturb the circulation, as shower, douche, and plunge-baths.
14. Great heat of the body, or perspiration, is no objection to any form or kind of bath, providing the respiration is not disturbed, nor the patient in a state of fatigue.
15. When two or more baths are administered daily, the principal and coldest one should be taken in the fore part of the day.
16. All full baths, except the warm, are better in the morning or forenoon, than in the afternoon or evening.
17. When baths are taken regularly every day, they should be omitted occasionally, as one day in a week, or two or three days in a month.
18. Whenever the patient feels dependent on any particular form of bath, and persists that he cannot do without it, some other should be substituted for a few days.
19. Patients should never take a bath so cold that fatiguing exercise is necessary to "get up reaction." The better way is to use water of a milder temperature.
20. Very feeble persons should have the water for all bathing purposes at nearly the neutral temperature, which is 90 deg., varying but a few degrees above or below.
21. Pleasurable sensations for the time are no evidences that the bath is useful. Very cold or very hot baths may be succeeded by agreeable feelings, but be very wasteful of vitality. The same is true of stimulants, nervines, and narcotics.
22. The temperature of the bathing-room should always be comfortably warmed and well ventilated. For invalids the temperature should be 70 to 80 degrees.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

GRAHAM BREAD.

BY MRS. JULIA A. CARNEY.

In the April, 1873, number of the "SCIENCE OF HEALTH," page 165, I find the following statement by Julia Colman, in one of her excellent series of "Seasonable Dishes":

"The term 'Graham' should apply to all coarsely ground unbolted flour, or rather to meal of all kinds, and to the bread made from it; for that, as I take it, was the peculiarity advocated by Dr. Graham. So I prefer to use this as a sort of generic name, under which may be classed wheat-meal, rye-meal, oat-meal, maize-meal, and the various breads made from them, all 'Graham' breads."

Now, it has seemed to me that the most fitting tribute a tardily awakening world can render, to one who for so many years was called "maniac," "fanatic," and "fool," by those who would not accept the gospel of Hygeine which he preached, was this universal agreement, in naming for him the kind of meal he advocated and introduced, *viz.* unbolted wheat.

At any of our grocery stores or flouring mills, inquire for Graham-meal, and you at once receive this kind, in sacks labelled accordingly, while buck-wheat, rye, Indian-corn or maize, are as usually considered as entirely different in name, as in dietetic properties. This appears to me a matter of more importance, as I consider the unbolted wheat bread the only kind which of itself will suffice for the wants of a family supply; while all the others come in merely as accessories, to give variety to our table by their manifold preparations.

Or to use Dr. Graham's own words, "That one which, as a general fact, is uniformly preferred by our children and our household—that one, the absence of which they would notice soonest, and feel the most—that one which, however

they may enjoy for a time the little varieties set before them, they would be the most unwilling to dispense with—and which, if they were driven to the necessity, they would prefer to any other dish, as a single article of subsistence."

This is strong language; but unbolted wheat-meal, after using it for many years, has become to me such a necessity, that I do not hesitate to apply to it the above words. Insisting, however, upon preparing it in as many different modes as culinary art applies to other kinds of meal or flour, with this exception—I would never interlard it with any preparation of swinishness.

When a mere child, scarcely yet in my teens, I often saw Dr. Graham at the house of a friend, the senior publisher of his "Science of Human Life." He was then engaged in superintending the passage of this work through the press, and I first read it in the original manuscript. Receiving from the author a large share of attention and petting, because of a real or fancied resemblance to some young friend (his own daughter, I think), perhaps also from the eager interest with which his new theories inspired me; my juvenile mind then received its first impressions of Hygienic reform.

While, therefore, not believing all his opinions entirely correct, nor strictly complying perhaps with all I do perceive, I am yet indebted to his works, and others which I was induced to peruse by the interest thus awakened, for an incalculable amount of good.

- For, although my physical constitution, if I ever had any, had been poisoned by as large an amount of allopathic drugs as ever fell to the lot of mortal child to swallow, and survive; yet, thanks to "all kinds of strange notions" then imbibed, I soon regained a degree of health quite unexpected to my anxious friends; many of whom were thus induced to

examine the "notions" more impartially. From a complimentary copy of his "Lectures, etc." received at that time and preserved until now, perhaps because to my young mind complimentary copies of new books involved new experience; I quote as follows:

"I have thus far spoken almost entirely of wheaten bread, because I consider that the most wholesome kind of loaf bread for ordinary use for 'daily bread.' Rice, barley, oats, rye, Indian-corn, and many other farinaceous products of the vegetable kingdom, may also be manufactured into bread, but none of them will make as good loaf bread as wheat."

Upon a subsequent page he says : "Barley and oats may be manufactured into very wholesome bread; but they are little used for such purposes in this country. Rice, arrow-root, tapioca, sago, peas, beans, chestnuts, millet, buckwheat, potatoes, etc., may also, by mixing with them a portion of wheat or rye flour, be manufactured into loaf bread; but, as I have already stated, there is no other kind of grain or farinaceous vegetable substance, from which so good loaf bread can be made, as good wheat."

Another reason why it is hardly correct to speak of other kinds of coarse bread as "Graham" is, that at that time those other kinds were well known, and almost the common bread of the people of New England. Our broad prairies were as yet comparatively unknown to cultivation, and the railroads which now intersect the country in every direction unbuilt.

Wheat was therefore less used than now; and the hardy maize united with rye to form the staple bread of at least the laboring classes. It is unnecessary to add that, in our thrifty New England, the laboring classes have always been in the majority.

Dr. Graham never professed to have been the inventor of this kind of bread. On the contrary, he says, "In all probability, the first generations of our species, who became acquainted with the art of making bread, continued for many centuries to employ all the substance of the grain, which they coarsely mashed in their

rude mortars or mills. And even since mankind began, by artificial means, to separate the bran from the flour, and to make bread from the latter, the more close and discerning observers among physicians and philanthropists, have perceived and asserted, that bread made of fine flour, is decidedly less wholesome than that made of the unbolted wheat-meal. Hippocrates, styled the father of medicine, who flourished more than two thousand years ago, and *who depended far more on a correct diet and general regimen, both for the prevention and removal of disease, than he did on medicine*, particularly commended the unbolted wheat-meal bread."

He continues by referring to the ancient wrestlers, of whom it is recorded that they "ate only the coarse wheaten bread, to preserve them in their strength of limbs;" says also that the Spartans were famous for this kind of bread, and refers to the statement of Pliny, that "the Romans, as a nation, at that period of their history when they were the most remarkable for bodily vigor and personal prowess, knew no other bread for three hundred years."

He does not insist upon unleavened bread, although speaking of it in general terms as probably nearest to nature, but gives the most elaborate directions for making loaf bread with hop or milk yeast, and even speaks favorably of soda-biscuit, and batter or griddle cakes. Some of his recipes would do credit to a housekeeper, were they not so prolix.

In this, the masculine pen displays itself, even though the chapter be upon bread-making; for it is a curious fact that while men *may* be sententious and energetic in their own domain, they invariably become weak and trifling when they enter the housekeeper's department.

Few even of those who use Graham meal baked in the form of gems, know how excellent an article of loaf bread may be made with any kind of good yeast, and with the same care as given to fine flour.

A table-spoonful of molasses to each loaf is to most people an improvement,

also letting it remain a little longer in the oven than required by fine flour. When stale, steam or toast, and serve warm. It is excellent with milk or fresh cream.

Buckwheat cakes, if made with one-half Graham-meal, and baked upon a soapstone griddle, or one slightly rubbed with suet, instead of the ordinary way of frying in lard, would be more appetising, and far more healthful.

What is called Boston brown bread is to my taste, much improved by using coarse wheat instead of rye. And I confess to a liking for gingerbread and cookies made with this meal, and shortened with cream.

Were I not afraid of the editorial frown and the waste basket, I would acknowledge that I sometimes add to the cold water in my gels, a cup of sour milk or cream, a tea-spoonful of soda, and a "pinch" of salt. My anti-Grahamite visitors like them, and ask for a recipe. I think them much better and more wholesome than fine flour, even if not strictly according to Hygienic rules when made in this way.

SEASONABLE DISHES.

BY JULIA COLMAN.

Green Peas.—Purslane Soup.—New Potatoes.—Old Potatoes.—Summer Squashes.—Green Apples.—Green Apple Pudding.—Blackberries.—Blackberry Pudding and Ambrosia.—Summer Fruits.—Drying Berries.—Canning Fruits.—Canning Fruits Without Cooking.

Green Peas.—We may take the matter leisurely. There is little prospect this season that our readers of this latitude will need recipes for cooking green peas before the ever-prompt SCIENCE OF HEALTH reaches them for July. In times past it has been considered orthodox and in good season to have green peas on the table on the fourth of July. Of late the cultivation of the dwarf and other improved sorts bring them a little earlier. Green peas lose their flavor very soon after being gathered. The best time for picking them is in the morning of the day they are to be used, before the sun is hot. If the dew is still on, you will

get less of a wetting if you clip the pods off with shears instead of pulling them. See that those gathered are well filled out; or perhaps I should say that familiarity with the kind should determine the size at which they should be used. The picking should not be entrusted to thoughtless children. Pick and shell with clean hands, and the peas will not need washing. If not well assorted, shell the older ones first, and put them to boil ten minutes before the others are put in. If they have begun to turn yellow, they should be cooked by themselves, if at all. The latter are sometimes scalded and dried for future use, and that is better than to mingle them with those much more tender. Have them a little more than full of water; cover close, and cook gently fifteen or twenty minutes. If very closely covered, they may be cooked in very little water, if preferred. But whether the water be much or little, it should not be thrown away, as that wastes both sweetness and nutrition. A little habit will enable one disposed to appreciate their true flavor to relish them without seasoning. Thus prepared, they may be eaten freely once or twice a day by any one in ordinary health, provided he has not previously been living mostly on dry concentrated and heating food. If seasoning is indispensable, add a little salt; if cooked rather dry, add a little cream immediately after removing from the fire. If the peas are not sweet and fresh, add a little sugar, say one tea-spoonful to one pint of peas, while boiling. Green peas are a very acceptable addition to vegetable soup.

Purslane Soup.—The same is true of purslane, a mucilaginous "weed," very common indeed in some gardens. It is, however, an introduced plant, never found wild. If carefully cultivated, we have little doubt it might make a valuable edible. It is, as we now find it, quite too good to be wasted; not quite so nice as gumbo, but much more easily raised, and coming earlier in the season. It is slightly but agreeably acid. It is best used before the seeds ripen. Wash, pick, and shred it up, leaves and stem, into

any vegetable soup, or make it into a "soup maigre," with pearl barley, with or without slices of potato, and a flavoring of onions.

New Potatoes.—These were formerly the favorite accompaniment of green peas; but it certainly was not a very refined taste that desired them. Unripe potatoes have very little to recommend them; probably because the starch which gives the mealiness and the nutrition to potatoes is deposited or developed mostly in the process of ripening. It is therefore very wasteful to dig and eat the potato in the unripe state. Of late years it is not so much done. Potatoes are much more expensive than formerly. Varieties have been obtained which ripen earlier, like the early rose. Dishes have come into use which take the place of potatoes, oat-meal, hominy, grits, and crushed wheat for the breakfast table, and samp and boiled wheat, and rye, and pearl barley for dinner.

Old Potatoes.—Greater care is taken to preserve old potatoes than formerly. They are best when kept dark and dry, and well protected from the air. Sprouting should be prevented, if possible, or checked promptly. If withered, they are improved by lying an hour or two in water after paring. Put them to cook in cold water, and pour it off just so soon as they are done sufficiently not to slip off the fork in probing. Potatoes at all times are better for this watchful treatment, and often they are not presentable without it. Pour off the water, partly remove the lid, and set the kettle near the fire five minutes. If mealy, serve without mashing, in a vegetable dish, covered with a single napkin, and over that from four to six folds of nice white flannel, kept for that purpose. This keeps them warm, without condensing steam enough to make them watery. A neater way of arranging this is to make the linen into bags, like little pillow-slips, about three inches longer and wider than the potato dish that is to be covered. Into this slip the folded flannel, and fasten the end with buttons or pins. This will be found much more desirable to

use the year round, with all whole boiled or baked potatoes, than the common earthenware cover. The flannel should be taken out and dried immediately after use. The linen may be washed with the other napery.

If the potatoes have watery cores, or other hard spots, mash them. This should always be done promptly. Starch or starchy substances, when once cooked and are cool enough to set, the fluidity or miscibility cannot be restored. To make them very smooth and creamy they should be mashed before they have cooled perceptibly, and this should not be done in a cold dish. If attention is paid to this, they will require less seasoning than otherwise. The latter may be a little salt; a very little cream, or milk, or beaten egg (fresh or curdled), one to a quart of mashed potato. If they must wait before being served, let them wait after mashing, and keep them hot in the oven, where, if they brown slightly, it will not injure them. When potatoes are at their best, they need no seasoning, and they are preferable not mashed. They are more likely to be insalivated, and they require much less dressing, in the way of rich gravies, to make them go down.

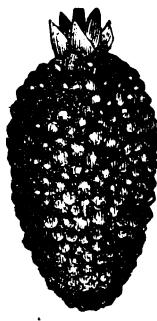
Summer Squash.—This is about as nutritious and flavorless as green potatoes. If the cook doubts this, let her taste the thing after it is boiled, and she will realize how entirely it owes its palatability and its use in any shape to its seasoning. Still, we are not aware that it is positively unwholesome. The summer crook-neck is the most easily managed, and the scallop comes next. If it is required to thin out the winter squashes, those picked off can be boiled like summer squashes; but, unless this thinning is required, it is as much a waste to pick and use them in this way as to dig and eat green potatoes. Green squashes should be freshly gathered and crisp, and as the whole is served, the seeds and skins should be very tender. A good way to test them is to try the skins with the finger nails. Cut in two or more parts, cover close, and steam or boil gently in very little water. When ten-

der enough to cut readily with a spoon, drain in a colander, cut fine, or mash with a spoon, add salt to the taste, cream, and a very little sugar, or instead of the cream, one egg (curdled and beaten) to one quart, or the yolk to one pint of the squash. Serve warm.

Green Apples.—These are nearly as unsatisfactory as the foregoing green things, as we shall find if we attempt to make them into puddings and dumplings. This is more or less true of all early apples, even when ripe. They are not nearly so rich as the late fall and winter varieties. For tarts, marmalades, and to cook with onions (as in mallium) they do better. If other fruit is scarce, however, they can be made into a

Green Apple Pudding.—Fill a nappy with cut apples, and cover them with a crust half an inch thick, made by scalding wheat-meal with half its quantity of boiling water, and adding currants, as directed in "Seasonable Dishes" for June. Bake the pudding half an hour, or until the crust is done. Put a plate over it, and reverse, so that the apples shall rest on the crust. Sweeten, and mash thoroughly with a spoon, and serve cold or warm, cut into sections like a pie.

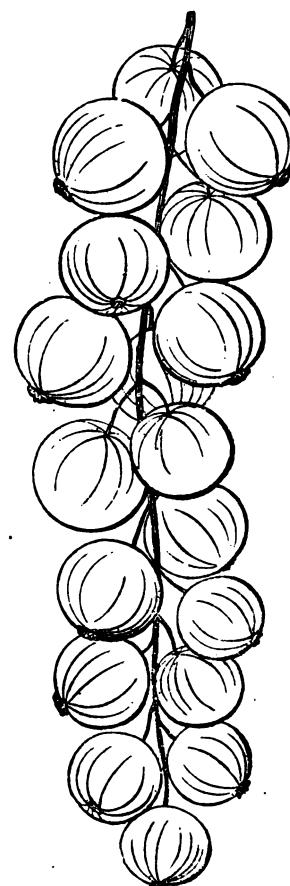
Blackberries.—This is one of the most wholesome of the small fruits; and best,



HIGH BUSH.

by all odds, when eaten fresh, if perfectly ripe. The great sour Lawtons that are brought to market only tantalize us with their reminders of the sweet and luscious berries that come from the woods and mountains of our childhood. They are very good when ripe; but the difficulty

is to decide when that may be. They are admirably made up to sell. The grower picks them and sends them to market as soon as they are well colored, and while yet sour and hard; and usually they reach the consumers in that state, so that they need cooking to mellow them. But simple stewed blackberries are poor things. With cereals they are much better; so we make them into pies



MAY'S VICTORIA.

with an oat-meal crust, and into puddings, after the recipe given for gooseberry pudding in May; and, above all, into Ambrosia, where they are good enough to atone for all deficiencies elsewhere. If that delectable dish has not yet been tried, blackberries will introduce it gracefully. But good ripe blackberries can hardly be bettered for dessert

by cooking, by sugar, or by trimming of any sort, and your fingers, or, if they are too delicate, your silver(ed) nut-picker is the best instrument to eat them with.

Summer Fruits.—Currants, especially the large rich currants, almost as big as cherries, mingled with the sweeter white currants, make a handsome and very palatable dish, sugared and washed in the saucer just before eating, though they are rather too tart for a dessert by themselves. They dress the milder fruits, like huckleberries and blackcaps, by mixing the latter with them after they are mashed in the saucer. This serves nicely as a dessert. If desired in more tasteful shape, strain and sweeten the currant juice, and pour over the berries. Currants, too, afford one of the delightful acids which it is so desirable to save for future use. It is also quite strong enough to bear the cooking requisite to evaporation. If it still requires sugar, add it after evaporation, and it will make an acid which will still bear much dilution. It requires less room and is more convenient for use than when merely scalded and canned. The more delicate juices of red raspberries will hardly bear this treatment, and if desired for preservation, they must be canned. Do not forget to try a raspberry pyramid with rice.

Drying Berries.—The season has come for preserving some of these delicate fruits for the future. The most ready and inexpensive way of doing this is by drying. Spread them on earthenware of some kind, for wood will absorb their juices, and metal will taint them. Even tin mars their perfect flavor. The sooner they are dried the better. If it can be done in an oven, without danger of burning, that is perhaps the most expeditious method practicable for all. Some stoves have a tin attachment for keeping dishes warm, which can be used to great advantage for drying fruits. Another good device is a rack of shelves back of the stove, or over the mantle, on which the plates may be placed. In this case they would need to be protected from the flies by mill-net, and from the dust by pieces of paper about the size of the

plates. The next best place to dry fruit is in an attic, well heated by the sun, which, however, should not shine upon the fruit, and with open windows, to secure good currents of air. The latter should be closed in damp weather. The fruit may be scalded before the drying is commenced, and if it dries slowly, the scalding may be repeated; the more juicy fruits will dry the sooner for it, and will be less likely to sour or mold.

When the fruit is perfectly dried it should be scalded again, to insure against mildew. It is hardly safe to do this in the oven, for it scorches so readily. A better way is to put it into a jar or jars, cover close, and boil in a little water in a large boiler. They can then be tied up in the jars and put away, or put into paper bags and tied closely, and hung in a dry room, away from other odors. If you wish to insure them further against the visits of the miller, put them into a well-made thick muslin bag, and tie up so closely that the millers cannot gain access to the fruit. Of course, these directions are for family use only. Factories, etc., have more extensive arrangements, found by consulting books on such topics. Families will also have various devices, according to their varying facilities, remembering to guard against long drying, metal, dust, flies, direct sunshine, and millers. It is usually cheaper to buy dried fruit in the market than to buy fresh fruit and dry it. But there are some fruits, as huckleberries and blackberries, so desirable dried for certain cooking purposes, that if they cannot be purchased dried in the winter, it is worth the while to purchase and dry them.

Canning Fruits.—It takes less time and trouble, but more expense, to can fruits than to dry them. We take it for granted that glass cans are those which all families use when they can get them, and a small outlay each year will soon accumulate a sufficient stock. They are perhaps very little more expensive than tin, for they last longer. Those are best which do not give the fruit access to metal or rubber.

The principle involved in canning of all sorts is the entire expulsion of the air. This is usually effected by heat sufficient to cook the fruit. For the smaller fruits, which break readily by handling when cooked, it is better to put them into the cans before cooking, fill up with water, which must be of the same temperature as that in the bath in which they are placed (usually in a large wash-boiler), where, after being brought to the boiling point, they should cook from five to ten minutes, the water coming up to three-fourths the height of the cans. The jars should not rest directly on the bottom of the kettle, as they are likely to break. Then take the cans out, place on a cloth or a board, shake them to loosen the bubbles, fill up with boiling water, and adjust the cover. The amount of air under the cover should be so slight that it will be displaced by the steam from the hot fruit in the act of sealing.

If there is no objection on account of massing the fruit, the process is rendered much more expeditious by cooking the fruit and dipping it hot into the cans. These, if of glass, must be carefully managed, or they will break. A common method is to heat them by first pouring in a little water as warm as the hand can bear, and soon that which is hotter, and this may soon be replaced by that which is scalding hot. Then this is poured out, and the can is ready to be filled up with hot fruit. A dexterous hand can heat the jar more promptly by pouring in, say half a pint, of boiling water, and whirling it around the jar at once until thoroughly heated. But if this hot water were allowed to stand still in the bottom of the jar, the latter might break, because heated unevenly. Again, if the cold jar be placed on a cool wet cloth, the hot fruit may be ladled in at once, because the cold cloth cools the bottom of the jar, which otherwise would be excessively heated by the constant descent upon it of the hot fruit.

An abundance of juice should be dipped in at first, so as to leave no vacancies for the air, then the cans may be sealed

as soon as filled; but if there are bubbles, let them out with a fork or with a spoon-handle, fill with hot fluid and then seal. When cooled an hour or two, screw tighter, if possible, or see that they are firm. Let them stand in sight a week or two, and if they do not ferment, put away in a dark, dry place, and they will keep sometimes for years. If on cooling the fruit settles, leaving a vacant space, that is not necessarily air; at all events, do not re-open the can, as a failure, until signs of fermentation are visible. Then open promptly, scald and reseal; or, better still, use it up, and use the can for other fruit.

Canning without Cooking.—This long-studied problem has at length been solved, and we are happy to be among the first to announce it to the world. The air is expelled without cooking, by a process so complete that the results are perfectly satisfactory, and so simple that those who have studied it will wonder that the problem had not sooner been solved. We have seen the fruits put up in this way, and they are beautifully done. We are told that meats can be preserved by the same process. Patents have been allowed on the process and the necessary apparatus, and by the time this reaches our readers, it will doubtless be announced by notices and advertisements, which will inform those interested how they can avail themselves of the benefits of this most valuable invention. Only think of strawberries preserved any length of time without cooking, and orange juice for pudding sauces! But who can tell what it will not do? Our fingers fairly ache to get hold of it. The business is managed by a lady well known to the literary world, Miss Amanda T. Jones, a writer of no small note, and a stirring poet of the war period; and she is demonstrating most efficiently that she knows something besides writing.

Evenings at Home.

Recipe for making farmers' boys love to stay at home in the evenings.

1. Treat them as partners with you. Give them to understand that they are interested in the suc-

cess of the farming operations as much as you are yourself.

2. Converse freely with them. Get their opinions, and give them yours. If at all prudent, make use of their plans, and when you think your own best, explain to them why you do not adopt theirs. Don't keep them altogether in the dark with reference to your plans for the future.

3. Don't require them to stay at home in the evenings all the time. When there is any meeting or entertainment from which they might receive benefit, be sure to let them go.

4. Provide them with plenty of good books and papers; especially referring to agriculture. Let them be well posted in their own business—farming.

5. Never scold them because they don't do their work or attend to the business of the farm as well as you do. Encourage them.

6. Give them a holiday now and then. They look for it, and they need it; and it will be better for you and them to let them have it.

7. A little rational amusement now and, such as croquet, wicket, a sail, and a swim, will give variety, health, and contentment.

THE FIG IN HIGH LATITUDES.—The Massachusetts Horticultural Society recommends the culture of the fig, and says that, "If it were known how easily fig-trees may be protected in Winter, we should oftener find this fruit on our tables. Nothing more is necessary than to dig up the trees in Autumn, and plant them in a cellar; the repetition of this process soon forming a mass of fibrous roots, rendering their removal a matter of entire safety, at the same time it induces fruitfulness." Those who may be disposed to try to grow this delicious fruit in the North, may learn all the particulars, by addressing Messrs. BLISS AND SONS, Seedsmen, New York.

GREASE ON CARPETS.—Cover the grease spot with whiting, and let it remain until it becomes saturated with grease; then scrape it off, and cover it with another coat of whiting, and if this does not remove the grease, repeat the application. Three coats of whiting will, in most cases, remove the grease, when it should be brushed off with a clothes brush.

TO DESTROY CABBAGE WORM.—The following is recommended by a reader: Diluted mackerel brine applied on, and around, the plants three or four times per week until the cabbages begin to head.

CUTTING FLOWERS.—Never cut your flowers during intense sunshine, nor keep them exposed to the sun or wind; do not collect them in large bundles, nor tie them tight together, as this hastens their decay. Do not pull them, but cut them cleanly off the plant with a sharp knife,

not with scissors. When taken in-doors, place them in the shade, and reduce them to the required length of stalk with a sharp knife, by which means the tubes, through which they draw up the water, are left open, and the water is permitted to ascend freely; whereas, if the stems are bruised or lacerated, the pores are closed up. Use pure water to set them in, or pure white sand in a state of saturation, sticking the ends of the stalks into it, but not in a crowded manner. If in water alone, it ought to be changed daily, and a thin slice should be cut off the ends of the stalks at every change of water. Water about milk-warm, or containing a small quantity of camphor dissolved in spirits of wine, will often revive flowers that have begun to fade. Place a glass shade over them during the night, or, indeed, at all such times as they are not purposely exhibited; shade them from very bright sunshine, and when uncovered set them where they may not be exposed to a draught of air. A cool temperature during the Summer is favorable for them, and the removal of the slightest symptoms of decay is necessary. When carried to be a distance, carry them in a shallow, air-tight tin case, or cover them with a diaper, to exclude them from air and light. Charcoal saturated with water is also a good medium to stick them in, and the thinner they are kept the better. Every family may, and ought, to have fresh flowers in the house every day, Summer and Winter. O! the humanizing influence of beautiful flowers on our sin-sick souls! Ladies, if you would add an attraction, by which to make your homes like Heaven on earth, grow flowers.

GLASS FRUIT CANS.—We all very much prefer our fruit in glass cans. We can see it before it is opened. The flavor is better. Most fruits are more or less injured in tin fruit cans. The great objection to the use of glass in factories lies in its expense, mostly, of course, in the first cost; for glass bottles are transported without great loss for various other purposes. Could not something be done towards lessening the expense by allowing a fair equivalent on cans returned? We believe that the fruit factories, especially those in and near large cities, which will make such an arrangement, will profit by it largely. The details we leave to them, but we earnestly invite their attention to the "situation."

PRESERVING EGGS.—A Parisian paper recommends the following method for preservation of eggs: Dissolve four ounces of beeswax in eight ounces of warm olive oil; in this put the tip of the finger and annoint the egg all around. The oil will immediately be absorbed by the shell and the pores filled up by the wax. If kept in a cool place, the eggs, after two years, will be as good as if fresh laid.

Pacific Department.

C. F. YOUNG, M.D., Corresponding Editor.

DISEASED LIVER.

So the doctor says. The patient has dark hair, skin and eyes; a large frame, fine deep lungs, and good stomach. Has formerly been active and ambitious.

Living in a malarious district, quinine was recommended as the sure preventive of chills. At first, it was administered by a physician—quinine and cathartics in alternation. That was expensive, and encouraged the thought that they were sick; so quinine was bought by the ounce, and pills by the dozen boxes, and the family became their own druggists.

We queried: "Did it occur to you that in coming from the mountains to these intensely hot valleys, the quality of your food should have been changed?"

"No, we do not remember ever hearing or thinking of such a thing."

"Did not the doctor direct changes?"

"Oh, he told us we should be a little careful of our diet, but he did not explain or specify."

"What do you now understand by a light diet?" we asked.

"Anything that relishes or tastes good. If plain meat and potatoes do not relish—a piece of buttered toast with a bit of boiled ham—a slice of cake and a cup of strong tea and some nice preserves usually taste pretty well."

"Bread from white flour?"

"Yes, we don't make bread of horse-feed in this country."

"How are your bowels?"

"Months at a time constipated; of late, alternating between the two extremes."

"Do you bathe?"

"I wash my feet of course."

"But, please, do you not wash all over twice or three times a week, and rub yourself until red and warm?"

"No, indeed! I do no such thing. I should get my death of cold."

"Do you never wash all over?"

"Oh, yes, in very hot weather to cool myself."

"I suppose you change your clothes two or three times a week in hot weather?"

"Certainly, because I perspire so freely."

"How in cool weather?"

"Only once a week."

"You sleep on feather-beds?"

"Yes, with cotton comforts that I brought from the States."

"Have they ever been washed?"

"No, they are too heavy."

"How often do you sun and air them?"

"Twice a year, when we clean up the house."

"Do you leave the windows open at night?"

"Mercy, no! the doctor says we must not breathe the night air."

"How can you help it? Do you live without breathing? Clean air, my good woman, is as much better to breathe than foul, as clean garments are nicer than dirty ones."

This, dear readers, is a picture of the modes of thought—or rather of the absence of thought—among even intelligent people in reference to the laws and conditions necessary to the possession of good health. This woman is the wife of a clergyman, in whose library are scores of theological books; not one, however, recognizing the fact of *physical life* as a gift and an evidence of Divine love; and, therefore, imposing upon men and women obligations to carefully study, and conscientiously obey, the divinely appointed

LAWS OF HEALTH.

These people are conscientious in the observance of the moral law pertaining to spiritual life, but very thoughtless and forgetful of the intimate relation of spiritual and physical life. The activity and vividness of faith and hope depend in a large degree upon physical health ; and health depends much upon the quality of food and drink we use. The manner of taking food, exercise, cleanliness and pure air, have much to do with digestion and assimilation.

"Well," said the sick woman, "can you do anything for me?"

"I can instruct you how to do something for yourself. You have torpid or slow-acting liver—probably an enlarged spleen. If the liver was much inflamed, you could not sit up or do your work. You need—

"1st. A tepid bath two or three times a week.

"2nd. A warm bath once a week.

"3d. On an empty stomach, one or two tumblers of pure water—cool or warm as suits your conditions of chill or fever—take it the last thing at night and the first in the morning, and while in the bath between eleven and twelve o'clock.

"4th. Breakfast at seven or eight, and dine at two or three o'clock. Eat slowly, masticate thoroughly ; use freely dry brown unleavened bread with plum, prune, or cranberry sauce.

"5th. When the pain in the side and the 'ague-ache' trouble you, undress, lie down, have your husband wring a folded flannel cloth in very hot water, apply it quickly over your side, and cover with flannels well tucked under. Repeat five times—once in five minutes—then with a cool sponge wash the red surface, and apply a cool wet and folded towel reaching from the shoulder-blade of the right side, forward across the stomach near the girdle; wet all around, cover with four thicknesses of old flannel pinned snugly over to prevent chilliness. Following this fomentation, put your feet alternately into hot and cold water, until they are red and the veins stand out full. Finish with the cold—wipe dry.

Then, if the hands are cold, treat them in the same manner.

"6th. In a stove room, always have a window down at the top. Sun and air your bed-clothes every day. Wear no garment at night which is worn in the day-time. As soon as possible, substitute soft woollen blankets for the heavy and impurity-absorbing cotton comfortables.

"When your tongue is clean, your rest peaceful, your skin clear, your eyes bright, the pain gone, the soreness gone, and you are very sharply hungry, you may select from the scores of healthful articles of food described in this Hygienic cook-book, that which pleases you, and eat with moderation. But you must not for three months—or until entirely well—use sugar, milk, or meats.

"Remembering your constitutional predisposition to torpid liver, we advise you to abstain altogether from pork, butter, spices, coffee, tea, fine bread, pies and cakes."

Looking up sadly, she said : "It is a great deal of work to get well your way."

We replied : "Is it any less work to take quinine by the ounce, and pills by the dozen boxes, and mercurials until your teeth drop out, and your joints are rheumatic, your ears buzzing or deaf, your head bald, your whole body corrupt and full of anguish, your faith dim, your conscience seared, your soul, even, involved in despair ? If it is, go on in the old way. Think again, and remember, my sister, God washes the earth, and gives water to all birds and animals to drink. The flowers drink dew, and subsist on food adapted to their peculiar forms of life. His storms and tempests sweep over the seas and valley, dispersing malarial vapors; His glorious sunshine vivifies and purifies and makes glad the whole earth. Men destroy or change these divinely-ordained conditions, and birds and beasts and plants die. When they restore them, study them, obey them, they live.

"The same God that cared for the sparrows, numbered the hairs of your head. He—creating human bodies—established laws to control those bodies. Obey them, and you live. Disobey, and you languish and die."



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TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

ANOTHER YEAR.

WITH the present issue, THE SCIENCE OF HEALTH commences its second year's existence, and with all the encouragement, perhaps, that we could reasonably ask or expect. Our agents, who did so much to extend its circulation during the past year, promise to do still more the present year; while some hundreds of correspondents whose names and pens are new to our books and files, assure us that we shall hear from them soon, in shape of *long clubs* and "material aid." We are especially gratified to learn that our messenger of the "True Healing Art" is working its way (thanks to those who purchase the Journal and give it away) among thousands who have little, and some who have no knowledge of the hygienic system. The many responses that we receive from this new class of readers, to the effect that the principles we advocate, both in relation to the preservation of health and the treatment of disease, "seem to be founded in common sense and harmony with the laws of nature," show that our teachings are understood and appreciated. We can assure them that, if they will go along with us in the exposition of the problems of life, they will, sooner or later, come to the conclusion that, poisoning a person because he is sick, has neither philosophy nor common sense to recommend it; and that the whole drug medical system

has been one grand delusion from the beginning. And if they had studied and practiced the hygienic system half as long as we have, they might come to the conclusion that we arrived at many years ago—namely, that the universal adoption of the system by the people of the United States would save, annually, two hundred thousand lives and two hundred millions of dollars. Is not this result worth working for?

NO MILK FOR THE BABY.

"THE SCIENCE OF HEALTH, in an article entitled, the 'Natural Food of Children,' traces the remarkable prevalence of infant mortality in New York, to the use of improper artificial nourishment. Nearly half the children born during the past year in this city will probably die in infancy, owing to the neglect of sanitary measures and sound principles of hygiene. The influence of 'Fashion upon Health' is discussed in a lively paper, and many wise counsels on the treatment of the 'divine temple' of the human body, are presented in the series of brief pungent paragraphs that make up so considerable a part of the contents of the number."—*New York Tribune*.

THE effect that tight-lacing and fashionable dress have on the lacteal secretion of young mothers, is certainly an important subject. It is clear that the amount of milk that can be produced depends on the quantity of food that can be digested and assimilated, and that the nutritive powers are dependent

upon respiration. The more breathing the more digestion; hence, tight-lacing, loading the hips with heavy skirts, or anything else that diminishes respiration, just to that extent lessens the digestive power, and destroys the milk-producing capacity. It is certain that those who move in the fashionable circles become less and less capable of nursing their own babies; it is well known, too, that wet-nurses are extensively employed by this class, and that the mortality among their children is very great. On the other hand, some mothers have an abundance of milk, and these have invariably well-developed lungs. Beer, porter, bourbon, tea, coffee, and other slops, may increase the quantity of fluid secreted by the mammary glands; but it is not milk, such as infants can feed upon.

THE THREE THEORIES OF DISEASE.

THERE are just three theories of disease recognized by the different schools of medicine. Which is the true one? A successful healing art must be based on a correct theory of disease; hence, this question is an important one.

The Allopathic and Homœopathic recognize disease to be an entity, thing, substance, principle, or force foreign to the living organism; a something antagonistic to the life-force, and at war with the *vis medicatrix naturæ*. This is but a modification of the ancient notion that disease is a special infliction of supernatural powers, and a thing entirely preternatural.

The Eclectic and Physio-medical schools teach that disease is a negative condition—mere functional weakness; “inability of an organ or part to perform its normal function.” This is substantially the theory adopted and ably advocated by Dr. Jennings, of Oberlin, Ohio.

The Hygienic, or Hygeio-Therapeutic school, teaches that disease is neither a foreign entity nor a condition of inabil-

ity, but *remedial effort*. This doctrine presupposes that there is, in the living organism, some obstructing material which should be removed, or some damage which should be repaired, and that the *essential nature of disease* consists in the action or effort to remove the obstructing matter, or repair the injury.

The Allopathic and Homœopathic schools confound disease with its causes; the Eclectic and Physio-Medical schools mistake the effect or incident of disease for the disease itself, and the Hygeio-Therapeutic school regards disease as *vital action* in self-defence.

The practice of each school is, in the main, consistent with its theory. The Allopathic and Homœopathic treatment consists substantially in counteracting symptoms. It aims to suppress, or subdue, or remove, or combat the disease; to cure it, or kill it. The Eclectic and Physio-Medical schools do the same thing in a modified way. They aim to restore the ability of the disabled organs, and in this manner subdue, or remove, or cure, or kill, the disease—in their language, *overcome* it. But, as all things are poisons, whether in big or little doses, and whether potent or mild, the “law of cure” is the same in all cases. They all “cure one disease by producing another.”

The Hygeio-Therapeutic school denies that there is any “law of cure,” and declares that *disease should not be cured*. Disease being an effort of the vital organism to remove the normal state, the causes which necessitate that effort should be removed, in order that the effort may be successful; and the Hygienic (hygienic because it employs only those agencies which are normally related to the living organism) system of medication consists in supplying favorable conditions, so that the effort to remove the *causes of disease* may accomplish its work, and cure the patient.

The broad and distinct issue then, be-

tween the Hygienic system and all drug systems, is simply this: The drug system endeavors to cure diseases. The Hygienic system endeavors to cure patients. Which is the true healing art?

MIXING THE PATHIES.

THE University of Michigan, at Ann Arbor, has a corps of professors in its medical department, all of whom are of the Allopathic persuasion. But, in consequence of many and urgent petitions on the part of a large proportion of the people of that State who believe more in little doses than in big ones, or who fear them less, the Legislature has passed a bill requiring the appointment of two Professors of Homœopathy. This is as it should be. THE SCIENCE OF HEALTH is opposed to all drug systems; but it believes that the people have a right to be doctored by what system they please, and that the State has no right to appropriate the people's money to favor one system against another. The "Chronicle," a bi-monthly, published by the students of the University, intimates that, if the professors of the infinitesimal school intrude their etherealized potencies and four-thousandth dilutions, the professors of crude drugnamic qualities will vacate their chairs. We hope not. We pray them to hold on. We advise our Allopathic brethren to receive their Homœopathic fellow-beings with fraternal greetings. Treat them kindly as men; but, when it comes to facts, argument, logic, drug system *vs.* drug system, grains, scruples, drachms, and ounces—against mists, vapors, shadows and shades, show them all judgment, and no mercy. Surely the Allopath, with his accumulated lore of three thousand years, cannot fear to meet in debate the Homœopath whose system was born in the present century. Certainly the disciples of Hippocrates, Galen, Paracelsus, Bœrnhave, Hoffman, Stahl, Darwin, Cullen, Brown, and Brou-

sais, cannot fear to discuss the relative merits of much or little medicine with the disciples of a system which has but a single illustrious name, and that the modern Hahnemann. We earnestly beseech them to let truth and error grapple. In a fair field, truth always did and always will come off conqueror. We promise them, moreover, that if by any perchance or misadventure the Homœopathic professors should succeed in convincing the people of Michigan that, sick persons can be treated more successfully with diluted water, sugar nothings, and pellets of imagination, than with calomel, cod-liver oil, strychnine, alcohol, and turpentine, we will avenge them; for we will prove that no doses at all are still better than the least possible ones.

THE DOCTOR-MAKING BUSINESS.

THE medical colleges of the different "Pathies" have finished their winter sessions, and some two thousand M.D.'s are added to the seventy thousand engaged in administering poisons to their fellow-beings because they are sick. We respectfully call their attention to that part of the Decalogue which says, "Thou shalt not kill." But how diseases can be cured without killing patients, is a problem never yet solved. Does not Professor Alonzo Clark, M.D., of the New York College of Physicians and Surgeons, say "every dose diminishes the patient's vitality?" And does not Professor Draper, of the New York University Medical School, declare that, "vitality once lost, can never be regained?"

But these are platitudes that slide over the student's cranium as easily as water does over a duck's back. They have so much of the virtues of some hundreds of drugs from the lecture on *Materia Medica*, and so many cures of diseases by the Professor of Pathology that, all the common sense which occasionally varies the

monotony of drug teaching, amounts to nothing practically. After a few year's experience, however, the most devoted believer in curing diseases by means of drug poisons, may conclude that medicines are, at best, a "necessary evil;" and, if he has much originality of mind he may, in a few years more, come to the conclusion that they are evil altogether. Said the late Professor Alexander H. Stevens, M.D., "Young physicians are a most hopeful class; they start out with twenty remedies for every disease, but soon find that there are twenty diseases for every remedy.

The Hygeio-Therapeutic College has just graduated twenty, only one-half of whom contemplate practicing the healing art as a business at present. The result of the doctor-making business for the year 1872-'73 is, therefore, two thousand curers of disease to twenty curers of patients—rather a discouraging prospect for suffering humanity. Still this is progress, for a quarter of a century ago the Hygeio-Therapeutic College was not in existence, and there was not a strictly Hygienic physician known as such on the whole earth. Moreover, we must recollect that not more than one-half of the graduates of the drug schools ever become practicing physicians; that one Hygienic physician answers for as much territory as ten or twenty drug physicians, and that many physicians who cannot attend the Hygeio-Therapeutic College, must look to books for instruction.

THE QUESTION OF WOMAN'S DRESS.

PERHAPS there is not a more vexed question extant than that of, How withal shall a woman be clothed? The nature of ozone, the Republic of Spain, the future of France, the "International" problem, the narrow or wide gauge of our railroads, the "descent of man," and the end of the world, are not more bothersome problems to deal with. All the doctors say, and everybody agrees, that

the prevailing fashion is absurd and ruinous; but, the moment any one undertakes to dress herself unfashionably—"did you ever?" One of our intelligent transatlantic correspondents expresses the sentiments of many troubled minds on this subject :

"EDITOR OF SCIENCE OF HEALTH:— You will greatly oblige me by answering in your 'Talks with Correspondents,' these few questions following, on the subject of Dr. Dodd's Essay, entitled, 'The Penalties of Fashion.' I am one of those Englishwomen occupied in the attempt to improve the condition of the 'weaker' sex; and I am so persuaded of the dependence of Mind upon Body, that I feel it a really ridiculous thing to attempt any education of the brain, without having previously so freed the bodily system from artificial restraint, as to permit the healthy action of the entire organization. By theory and practice, I am a vegetarian; and, although I find since I accomplished my reform in diet, that I have achieved far greater spirituality of thought than I possessed in my carnivorous days, I am still aware that much remains to be done in the way of dress. I observe that Mrs. Dodd bids women—'see to it that they wear just as many thicknesses of clothing—no more—on your limbs as on your hips.'

"Now, I wish to ask the writer of this advice, how she proposes that women are to accomplish such a desirable state of things. I have often tried to design some sort of dress for women which should be at once healthful, durable, and beautiful. But I have never yet succeeded in the attempt.

"Will Dr. Dodd favor inquirers like myself, with a brief description or sketch of the kind of dress she recommends for her sex. Women will never widely adopt any costume which does not satisfy aesthetic requirements; and it is, therefore, useless to introduce the 'trouser' question. I know several ladies who, like myself, avoid with horror corsets, crinolines, and high heels; but who, nevertheless, would make a resolute stand against anything so ungraceful as the present masculine mode of attire.

"Will you, or some one of your contributors, endeavor to meet the difficulty, and to combine the demands of health with those of beauty?"

Some hundreds of American women have studied this subject for ten or twenty years, without being able to offer a

costume to woman that is generally acceptable, or that all "Dress Reformers" can unite in endorsing. And we suspect that the "aesthetic taste" will have to be educated more in conformity with nature before use and health will be regarded as beautiful.

But there is one broad platform on which all women who are in earnest in seeking a better style of dress can stand, as a beginning of the needed reformation, leaving the minor matters of longer or shorter skirts, trousers or petticoats, to the developments of the future.

They can all abandon the accursed corsets. They can all have their dresses loose and free at the waist. They can all have the skirt short enough not to drag in the mud when it rains, and raise the dust when it is dry. They can all suspend their clothes from the shoulders, and thus unload the hips. They can all wear warm stockings, and thick shoes with low heels. These things are not difficult for any one to do in any place, without stirring up the indignation of the street rowdies and the Paris fashion-makers. When they have achieved these little reformations, we may be able to see more clearly just how the coming woman should dress.

THE SANITARIAN.

SINCE the advent of THE SCIENCE OF HEALTH, some half dozen journals, following more or less closely in the footsteps of its "hygienic principles," have been ushered into being. We are glad to see the enterprise of editors and publishers taking this healthward direction. Three or four of these have been started in the city of New York, one of which takes our fundamental premise for a title, and calls itself "Hygiene." Whether the appearance and unparalleled success of our monthly has awakened this spirit of enterprise with our contemporaries, we do not know; but we hail them all as co-

workers in the good cause, and see in them a cheering indication that the public mind is rapidly "rising to the height of this great argument," the health of the people. The last of these new-born competitors is *The Sanitarian*, published by A. S. Barnes & Co., and edited by A. N. Bell, M.D. The first number (for April, 1873) is before us.

The Sanitarian does not propose to teach the people to become their own physician, nor to eschew all drug medication when they are sick; but its sphere is limited to applying hygienic conditions and sanitary regulations to the prevention of diseases. In its prospectus it says:

"The resources of sanitary science are inexhaustible. It will be a chief object of the "Sanitarian" to awaken public attention to the extent of the field, and to the facts indicating how beneficially it may be cultivated. This will be done by showing the amount of ill health and mortality from preventable causes of disease; by pointing out the nature of those causes, and the way in which they operate, by showing that such causes are removable; and by exhibiting improved health, longevity, and happiness as the fruits of their removal."

So far good. There is an ample field for the best talent of the medical profession in exploring and explaining the preventible causes of disease; and while seeing the way clear to take a long stride beyond this, THE SCIENCE OF HEALTH will always be ready to command and co-operate with all efforts to promote "improved health, longevity, and happiness." *The Sanitarian* is \$3 a year.

MORE HYGIENE.

IT must be that "hygienic principles" are bound to become popular. The first number of another monthly comes to us, greeting from Williamsport, Pa. It is entitled, "*Popular Journal of Physical and Mental Hygiene*," and edited by Drs. T. H. Helsby and T. J. Mays. We are more glad to see regular and intelligent

physicians of the drug medical schools, joining in the crusade *vs.* drugs; for, whether they write up Hygiene, or write down drugs, or do both, as we do, it all comes to the same result; for, when the people become sufficiently intelligent, they will certainly let the drugs alone.

Its "Popular" administers a severe but well-deserved dose to the abettors of quack medicine in the following paragraph:

"The popularity depends on no peculiar merit, but upon the skill with which its virtues are puffed by every device of advertisement. The public press thus becomes a powerful auxiliary of delusion, fraud, and mischief. It opens its columns freely and unreservedly to any who may choose to pay the price for the privilege of an insertion. Even the religious press fill their advertising columns with testimonials of cure by these medicines, and while on the one hand disseminating moral and religious instruction, on the other give a voluntary and ill-advised commendation to empiricism and quackery; thus, the very means by which the public mind should be directed and enlightened is converted into a source of incalculable evil to the life and health of the community."

In the following sentence, however, our worthy contemporary is certainly in error:

"We are told that the only remedy for quackery is the spread of intelligence and education; but in view of the fact that the most educated classes of the community are not unfrequently the most enthusiastic patrons of medical imposture and empiricism, we cannot believe that the spread of great intelligence will suffice to remove the evil."

The trouble consists in the erroneous doctrines which medical men and the people believe, viz.: That diseases should be cured, and that poisons are proper medicines. Enlighten the people on these subjects, and quack nostrums will disappear, and drug-doctors will go after them, or become hygienic physicians.

IS SICKNESS SIN?

A CORRESPONDENT asks the opinion of THE SCIENCE OF HEALTH concerning the sinfulness of sickness, calling our attention to the following platform of the Battle Creek Hygienic Institute:

PLATFORM.—1. God, in the creation of man, established laws pertaining to both his moral and physical natures, which, had he always obeyed them, would have given him immunity from sickness, and would have perpetuated his life. Sickness and suffering, which so greatly mar the happiness of man, had their origin in the violation of these laws.

2. As man cannot have eternal life without strict obedience to moral law, so he cannot have deliverance from the terrible bondage of sickness and premature death in this world without strict observance of physical law.

3. The moral and physical natures of man are so intimately related, that it is impossible to live in violation of either of these laws without doing violence to the other. Physical law, therefore, in its sphere, is as sacred and binding upon man as moral law.

4. The gospel teaches that man should live healthfully as well as righteously.

5. We recognize in nature the power to restore to health without the aid of medicines. The true physician supplies conditions: Nature cures.

6. Our *materia medica*: Good food, pure air, pure soft water, light, heat, exercise, proper clothing, rest, sleep, moral and social influence.

7. Our motto: Temperance in all things. Not only in eating, drinking, and in labor, but in everything that tends to exhaust the vitality of the system.

8. It has been well said: A contented mind is a continual feast. A well-founded trust in God is the best and surest promoter of cheerfulness of mind; and without this all other means may fail.

We endorse every word of that platform unreservedly. Sickness is sin in the same sense that remorse of conscience is sickness. In scientific phrase, both are penalties or consequences of transgression—the effects of sinning. To be sick, therefore, implies disobedience to the laws of the vital organism; and all transgression of God's law, whether moral or physical, is sin, and nothing else. When the preachers of moral righteousness will teach obedience to all of the laws of our being, "the world will be the better for it."

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

UNFERMENTED BREAD.—O. E. C.: “Can you tell how to make good bread without fermentation, that will be convenient for a family of a dozen persons; and be assured of the thanks of many readers of your excellent journal?”

It may very conveniently be made in rolls one to two inches in diameter, and six to twelve inches in length. It is made in this form at Florence Hights Hygeian Home for one hundred persons.

FRECKLES.—M. C. “Is there anything that will positively remove freckles without endangering the skin? Is not derangement of the liver a common cause? What do you think of the enclosed recipe?”

No. But by improving the general health and cutaneous circulation, the freckles will be much less prominent. Torpid liver is a common cause. The recipe is a humbug.

WILD HAIRS.—M. E. B. “Please inform me of the cause and cure of wild hairs in the eyelids? I mean short hairs which grow inward and upward against the ball of the eye, and which are exceedingly irritating and painful.”

An inflammatory state of the little glands on the edges of the eyelids is usually the cause. The lids should be frequently bathed and thoroughly rubbed, and the worst of the hairs pulled out.

GRAHAM FLOUR.—C. W. H. “Please tell us how Graham flour should be made, as there are hundreds of people in the vicinity, fifty years old, who have never heard of it, and do not know what it means. I am now thirty-five years of age, and have never yet seen the article.”

Graham flour is simply unbolted meal. It is made by grinding the wheat and not bolting it.

NORMAL BREATHING.—B. C. “In inflating the lungs, should the air be taken in through the nose or through the mouth? Is there such a thing as hardening of the lungs?”

Through the nose. The lungs sometimes become hepatized; that is, consolidated to the consistence of liver. It is known by sense of weight and difficult respiration.

TOBACCO-USING.—A dozen or more victims want to know if there is anything they can take, which is not injurious, which will rid them of the desire to indulge in the disgusting habits of chewing and smoking. We know of nothing but a strong resolution. This, if strong enough, is infallible. Where any nauseous drugs, like ipecac and assafetida, that, mixed with the tobacco, or

taken at the same time, will occasion a dislike for tobacco temporarily, on the principle that “we cure one disease by producing another.” But the desire soon returns. Every miserable tobacco sot should go to some place where he cannot see, smell, nor obtain the filthy weed, and in a few days or weeks, he will be himself again.

PIGEON-TOED.—C. M. C. “Can you tell me the cause of, and remedy for, turning in of the toes when walking?”

The cause may be constitutional malformation, or an acquired habit. The remedy is persevering practice to overcome the habit, or the machinery of the orthopedist.

OTORRHÆA.—H. R. S. : “Our little boy, five years of age, has had a discharge from one of his ears ever since he had scarlet fever one year ago. He has almost lost the hearing of the ear affected. Otherwise he seems to be in good health. What is the cause of such a discharge in a seemingly healthy child?”

The child is only seemingly and not really healthy. All the trouble may result from improper diet; but as you do not tell us how the child is fed, we cannot judge.

HOW WE LEARNED TO LOVE IT.—Mrs. A. W. R. says: “I learned myself and taught my family to love Graham or wheat-meal bread, by first sweetening it as would best suit the taste, then reducing the sugar by degrees, until it was finally discontinued.” This may be a good plan for those who have the sugar-tooth strongly developed; but well-made wheat-meal bread is of itself sweetening; it sweetens sour stomachs, bad blood, foul secretions, and even acid tempers.

FISH, SALTED OR FRESH?—Mrs. W. F.: Some Hygienists do not use fish at all, and some do not use animal food of any kind. But all Hygienists agree that flesh, fish, or fowl when eaten, should be eaten fresh. Salted provisions of all kinds are less wholesome than fresh ones.

PILES.—S. A. “Is there any radical cure for piles? If so, how and where can it be had?”

All forms of piles are curable at the Health Institutions; and a majority of cases are curable by home treatment. Proper bathing, with a strict and persevering dietary are essential in either case.

NOSE-BLEEDING.—E. F. Rush of blood to the head, constipation, congested liver, and over-exertion are causes of this affection.

Cooling the head, opening the bowels, and opening the pores of the skin by proper bathing, are among the remedial resources.

CHOKING.—S. P. G. “I have a heavy choking sensation in my throat near the collar bone. I drink neither tea nor coffee. Please tell me what is the matter?”

Please tell us what you do eat and drink, not what you do not; also how you exercise; also all about your other personal habits. We will then try to tell you what the matter is.

OBSTINATE CONSTIPATION AND BLEEDING PILES.—J. H.: There is little chance for a cure in cases like yours, after the vitality of the bowels has been nearly destroyed with cathartic drugs, without a course of treatment for six months or a year at a Health Institution.

EATING TO LIVE.—W. H. G. “Being about to change my mode of life and board myself, I want advice. What substitute can I have for stewed fruit, which will not keep well in this climate (Phelps County, Mo.)?”

The Hydropathic Encyclopædia will give you full instructions on the whole subject of diet.

SALT.—W. P. S. “If salt is unhygienic, why do wild stock frequent saline swamps or springs?”

Animals can have perverted instincts as well as human beings. Oblige an animal to use salt, vinegar, pepper, mustard, tea, coffee, whiskey or tobacco, and eventually it would crave it.

MILK vs. HARD WATER.—W. W. S. “Is milk better than hard water for a dyspeptic? Does it help lime water to boil it before drinking?”

Yes to both questions.

WASHING THE BABY—HARD WATER.—W. L. H. O. “Is it injurious to wash and dress an infant immediately after nursing? Is there any known way to soften hard water so that it will not leave the hands rough?”

1. Yes. 2. No.

NIGHT SWEATS.—H. C. “What is the remedy for night sweats which occur after prolonged intermittent or other fevers?”

Sponge the surface with tepid water, followed by gentle friction with warm, dry cloths.

CEREBRO-SPINAL MENINGITIS.—H. P. F. “Have you any book giving instructions for the Hygienic treatment of Cerebro-Spinal Meningitis?”

There is no work on that special subject. Hygienists regard the disease as a species of typhoid fever, and treat it accordingly.

WEEPING SINEW.—C. H. C. “What is the cause and cure of weeping sinew?”

The effects result from injury or obstruction, and may be cured by evacuating the fluid, and bandaging the part to prevent re-accumulation.

TITILLATION.—A. S. “Why cannot a person tickle himself?”

He can to some extent, but for the best effects (or worst), different magnetic or electrical states are required. Hence the advantage or disadvantage of a manipulation.

GOITRE.—W. M. “What is water-treatment for swelling of the neck of females?”

The wet compress and douches.

CHEWING GUM.—J. B. C. “I should like to see an argument, *pro* and *con*, with regard to the practice of chewing gum. I think many readers of the Science of Health would be benefited by an argument on the gum question.”

The argument *con* is, that all kinds of chewing, except the mastication of food, is pernicious, whether the chewed article be gum, tobacco, or any other foreign substance.

GRAHAM CRACKERS.—J. S. “They are made by mixing wheat meal and pure water, kneading the mixture thoroughly, and baking in a brick oven.”

GOOSE PIMPLES—BAD BREATH.—M. M. C. You are bilious. Bathe daily, and adopt a strict vegetarian diet. Use no fine flour, milk, nor sugar; drink only when thirsty, and drink nothing at meals.

A SUFFERER. Such private questions are not answered in **THE SCIENCE OF HEALTH**, nor can we pay any attention to letters which contain no address. All private letters, requiring answer, are answered by post, when stamp is sent to prepay postage.

PARTIALLY DEAF.—A. C. S. “I have been partially deaf for eight years, caused by scarlet fever. My left ear discharges two or three times a year, but at intervals hears the best. I can force air from the lungs through the deafest ear, I have also at times a loud roaring in this ear. Should the ears be operated on; and, if so, can you recommend a competent physician in San Francisco?”

The first thing to do is to treat the inflammation, which will require a rigid course of Hygienic living with suitable bathing, for at least one year. Whether any surgery is desirable can only be determined after all obstruction consequent on inflammation is removed. We do not know of any aurist in San Francisco.

NOTICE.—To “**MANY READERS,**” we beg to state that it is often impossible to reply to questions in the “very next No.,” for the simple reason that the next No. may be on press, or half printed long before the question reaches this office. We always intend to go to press, at least a month in advance of date. Besides, some questions will necessarily be crowded out, and must lie over.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

DOING WONDERS.—G. N. T., writing from Illinois, says:—"The Science of Health is doing wonders for myself and family. Before we were awakened to the necessity of observing the laws of health, my wife had aches and pains without number, and almost constantly. For the last seven months she has only had trifling ailments once or twice. My whole body was covered with those brown discolorations called liver spots; but they are continually disappearing, and I hope eventually to see the last of them."

The brick-dust deposits and ear-ache which you mention are consequences of a torpid liver.

A MISSIONARY OF REFORM.—W. F. T., of Toledo, O., writes:—"Enclosed find \$2.30 for SCIENCE OF HEALTH one year and Chromo. I have read your Phrenological Journal for eighteen years, and if as much benefit can be derived from your Journal of Health, as I have received from your other Journal, I shall be grateful indeed. In my way I am a missionary for your style of reform, and want all the armor on. Please favor me with price list of books."

STIRRED-UP.—C. W. H. writes from Madison Co., Tenn.:—"I am a new subscriber to your SCIENCE OF HEALTH, and am much pleased with the plain and common-sense manner in which you explain the conditions of health. Your system of treating diseases without medicine is new to me. I have always been taught, that while medicine in and of itself cured no disease, yet it was essential to assist nature in throwing off disease. I confess that I am considerably stirred up on the subject, and I begin to think you are right in many things, but I want more light!"

GOLDEN SEED IN BARREN SOIL.—B. L. E. writes from Los Angeles County, California:—"I concur in every word said in praise of your Journal. We had a visit from your Pacific editor, Mrs. CARRIE F. YOUNG, M. D., a few days since, and listened to two interesting and instructive lectures during her stay. Her words would be worth more than gold, could her hearers appreciate them. This vicinity is, however, a barren soil in which to sow seeds of such wisdom, and until the people are reinforced by an immigration of the more moral and refined, the work of health reform must be very slow."

NO POISONING.—Rev. W. S. P. writes from Nebraska:—"By severe exposure, my wife, after suffering for some weeks of a gathering under her arm, had pneumonia, and this was followed by erysipelas. I was away much of the time, on account of engagements to preach; but

with such instruction as we could get from THE SCIENCE OF HEALTH and the Hygienic Hand Book we have worked through successfully. She is now in good health, with no poison in her system to cause future chronic diseases, and no doctor's bills to pay."

A FAMILY DRUGGED TO DEATH.—C. S. writes from St. Louis Co., Mo.:—"My wife has been an invalid for thirteen years. She has tried eleven Allopathic doctors, and as many patent medicines with no benefit, although many hundreds of dollars have been expended. Some of the physicians we have employed were unable to express an opinion as to the nature of her ailment. She is thirty-six years of age; has had five children, four of whom died of diarrhoea. I have forwarded my subscription for the SCIENCE OF HEALTH, and will try to learn and practice the better way."

THE NEEDED REFORMATION.—H. C. writes from Michigan:—"I am a subscriber to the SCIENCE OF HEALTH. I like it for the principles it advocates, which I can fully endorse, so far as I can understand them. I do think that, if there is any thing in this world that needs reformation, it is the people's general habits of living; and the more I study this subject, the more I am convinced of the general ignorance of mankind, and the greater is my desire for higher attainments; and I am sure that your Journal is destined to do much in achieving the great health reform, which is the foundation for all earthly blessings."

TRACTS WANTED.—E. J. Chalfant writes from York, Pa.:—"The legislature of Pa. has just passed an act, creating a health officer for York, Pa. Power to fine and to vaccinate the poor is given, and we health reformers are to be taxed to for it. I see Baltimore, Md. and other places have laws compelling people to be vaccinated or pay a fine. It may not be long before we will be compelled to take quack medicines or pay a fine. The drvg doctors have weak or defective reflective intellects, or they would see we are right. As the law-makers are their tools, they are a dangerous set of men."

I think it is time for every health reformer to be at work. We need tracts of one or two pages, at \$2.00 a thousand, or 25 cents a hundred, to hand to thinking men and women. These tracts should set forth all the evils arising from vaccination. Perhaps it would be better to start a National Health Tract Association, and call for members, fees, dues, and donations, etc., and then have a large assortment of tracts, on all subjects relating to health.

I hope some one who has experience and energy

will at once organize a National Health Tract Society, and get up cheap tracts. If we can get health reformers to give a little of their spare cash and spare time, we can set a great many to thinking on the most important subjects—how to live true lives. The health reform is more important than any other, and will indirectly aid all others. So let us push the tract business at once. Now is the time to begin, and you are as good as any one I know of to strike the first blow. Let us then be up and doing, and we will be surprised at our success.

DAILY EVENING LECTURES.—A correspondent writes us as follows:—For some months past I have been preparing, during leisure hours, to give lessons—Free of charge—to the young men and young women of this place. I propose to instruct them in regard to Education, Physical and Mental Culture, Physiology, Phrenology, Physiognomy, Health, Hygiene, etc. I have a Phrenological bust, specimens of skulls, photographic pictures of distinguished characters, wood engravings, anatomical charts, gymnastic apparatus, etc., with which to explain and illustrate my subjects, I shall endeavor to teach the truth, in regard to the effects of tobacco, rum, poisonous drugs, quack medicines and the like, guarding them against the use of these demoralizing and destructive substances. This teaching will be general, more to call attention to the subjects than to go into details. A large number have already engaged to become students, and operations will begin soon. On these terms I shall have all the pupils I can instruct. My main object in doing this is to set a few of our young people to thinking, to correct errors and overcome vices, and to try to live virtuous lives. What think you of my plan? I feel condemned that I have not engaged in this work before. May I make amends by zealous efforts in the future. I hope you will stir up others to engage in similar work. There are many ladies and gentlemen amply qualified to lecture and to teach in a conversational way, thousands who are groping their way at present in darkness. What the world wants is more light, and my light will be none the less for lighting my neighbors.

Suppose a thousand persons should begin at once to form free classes in their towns and villages, each with ten, fifteen or twenty pupils, and there would be five, fifteen or twenty thousand learners, who now idle away their time.

[We agree with our correspondent, that the work he proposes will, indeed, prove most useful. Also, that others who are qualified to give instruction in this way should follow suit.]

"STOP IT."—Harsh words, and yet they must sometimes be spoken. Here is an example, in which we lose a subscriber, though we are consoled with the thought that he will come again, even from beyond the Pacific. Read the following:

Earlsville, Delaware Co., Iowa. Mr. S. R. WELLS,

Dear Sir:—My subscription to **THE SCIENCE OF HEALTH** expires with another number, I believe. Please stop it coming; the reason for this is *not* because I do not enjoy the magazine. I like it very much; indeed, I think it ought to be in every family; but I am changing my country, and do not expect any settled home in half a year. I am about to enter on Missionary work in Japan, under the auspices of the A. B. C. F. M. When fairly settled, I may renew my subscription; till then, adieu. Yours truly, J. L. Atkinson.

The Library.

New Books, in our line, are rare. We have none to announce at present, save that on **DIGESTION AND DYSPERISIA**, just published at this office. It will not be long, however, before many active brains and busy pens will be occupied in producing works which will greatly modify our whole medical practice. Conversations from a belief in the corrective powers of poisons, are not so sudden as where the emotions—not the intellect—are concerned. Those who adopt Hygienic principles, do so from an intelligent conviction; and they hold to their knowledge. The following have lately appeared:

FATHER MATHEW, THE TEMPERANCE APOSTLE. An address before the Monument Association, New York. By Hon. Henry Wilson, Vice-President of the United States. 12mo. Price 15 cents. Address this office.

It is an able and interesting history of the life and labors of this noble Apostle of Temperance, showing his wonderful power and influence, and giving the visible results of his labors. Every Temperance man, no matter in what part of the world he resides, ought to honor himself and this great benefactor, by acquainting himself with the life and labors of this, the foremost Temperance man in all the world.

The history of Father Mathew's visit to America will be exceedingly interesting. Our Vice-President furnishes a sketch at once eloquent, and full of facts.

MYSTERIES OF THE VOICE AND THE EAR. By Professor O. N. Rood, Columbia College, New York. Pamphlet; price, 25 cents.

A capital statement on a most important subject. We hope the author will elaborate or extend his investigation into these mysteries, and give us a scientific solution thereof.

WASHBURN'S AMATEUR CULTIVATOR'S GUIDE TO THE FLOWER AND KITCHEN GARDEN FOR 1873. Boston.

A young lady who is fond of flowers, and is willing to plant and care for them, should invest twenty-five cents in this beautiful Catalogue and learn how to plant, trim, and grow all sorts of shrubs, vines, trees and flowering plants. Try it.

TEXT-BOOK OF INTELLECTUAL PHYSIOLOGY, for Schools and Colleges. Containing an Outline of the Science with an Abstract of its History. By J. T. Champlin, D.D. New edition. 12mo. pp. 312. \$1.50.

AMERICAN HAND-BOOK OF CHEMICAL AND PHYSICAL APPARATUS. For Schools, Colleges, Factories, etc., 8vo. pp. 360. \$1.50.

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about his parent. When the writer was a boy, he used to revolve around his parent a good deal, and may have been incited thereto by love, but to an unprejudiced observer it looked powerfully like a strap.

SEA SICKNESS.—There is much truth in the exclamation of the old Methodist parson, when sea-sick crossing the Atlantic, that he was afraid on the first day that he would die, and he was afraid the second day that he would not die.

Dreams.

To dream of a millstone about your neck is a sign of what you may expect if you marry an extravagant woman.

It is very lucky to dream that you pay for a thing twice over, since ever afterward you will probably take care to have your bills receipted.

For a person in embarrassed circumstances to dream that he is arrested is very fortunate, for it is a warning to him on no account to accept a bill.

To dream of fire is a sign that—if you are wise—you will see that all the lights in your house are out before you go to bed.

We HAVE never favored corporal punishment in schools, but whether the substitute adopted by a Wisconsin teacher is desirable is doubtful. When a pupil is disobedient, idle, or refractory, he administers to the delinquent a dose of castor oil. The only result of this treatment reported is a pun, strangely and fearfully execrable, made by the editor of the local newspaper. He says such treatment ought to render the scholars "dose-lic." He evidently needs a quart or so himself.

THE GREAT SPECIFIC.

In the fair, a quack doctor, in tones harsh and loud,
Was vaunting his wares to the wondering crowd ;
His eloquent voice with success was exerted,
For the booths of his rivals were all but deserted.
"At this stall," he cried, "you can buy, if you please,
An infallible cure, sirs, for every disease
You've no time to lose ; for I've not near enough
To furnish you all with this wonderful stuff.
Could each of you carry away my whole store,
You would come back to-morrow and clamor for more,
The most copious dose of it never can hurt you ;
Not a man in his senses now doubts of its virtue.
In all shades of life, whether comic or tragic,
In love, war, or trade, its effect is like magic ;
It shortens the giant, and makes the dwarf bigger ;
Insures to the hunchback a beautiful figure.
It makes the rogues honest, the fools become wise,
And the old men all young in the fair ones' bright eyes.
New charms every day to the beauty it gives ;
To the dry spinster freshness as long as she lives.
The poor bachelor takes it, and soon gets a wife ;
It brings peace to the hearth of connubial life.
A very few drops will turn lies into truth,
And the gravest of sins to 'mere follies of youth.'
Steeped in it the nastiest morsels will please,
And the bitterest pills may be swallowed with ease.
Daily dishfuls of dirt have been cheerfully eaten
With a little of this, sirs, to flavor and sweeten.
Even those who don't use it have cause to speak well

of it,
For they find a relief in the look and the smell of it."
"O, please, sir, what is it?" they all loudly cry,
"What is this specific you want us to buy ?
Say, what's your stuff made of? we wish to be told."
"You fools! why, what should it be made of, but Gold!"

Hygienic Seasoning.

CREAM may be frozen by simply putting it into a glass vessel, and then placing the whole into an old bachelor's bosom.

WHICH? Kate Stanton, in her lecture on "The Loves of Great Men," asserts that the planets revolve around the sun by the influence of love, like a child revolve



No. 14.] New York, Aug., 1873. [Vol. III.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET, BATHING, SLEEP, EXERCISE AND REST.

PHYSIOLOGY AND PHYSIOGNOMY OF OUR FEET.

WHY! Are not human feet all alike? Can one's disposition be judged by the feet, as well as by the face and hands? Well, why not? Are not the feet of one long and slim, and of another short and thick? Has not one a high instep, and another a low instep? One a long or projecting heel, and another a heel nearly perpendicular? One a flat foot, another a handsomely curved hollow between the toe and the heel? Then are there not blunt, stubbed toes on one person's feet, and nicely tapered, symmetrically-shaped toes on the feet of another? Are not the toes of one all cramped up in a heap,—one toe riding the rest; and the toes of another evenly set, like regular teeth, just touching, but not crowding or overlapping? Are not the feet of one light, springy, flexible, and supple; while those of another are heavy, clumsy bog-trotters? Is not the foot of a fleet Arabian horse different from that of a common, slow draught horse? So of all animals; all men. One's face, feet, and hands all correspond, one with the other—aye, and so do their bodies, brains, and minds! A thick foot is found on a thick body, with a thick head; a thick hand, a thick face, and everything about the person is built up on a thick principle. So of the tall and slim sort; hands, feet, faces, body, brain, will be long and slim, rather than short and thick. Then, it is found that certain castes of mind and disposition go with certain shaped heads, faces

and bodies. These furnish "signs of character," which persons versed in Physiognomy can read. Not to keep the reader waiting longer, we proceed to exhibit engraved views of different styles of feet; and first, we give the principal muscles of the feet with descriptions—taken from "NEW PHYSIOGNOMY."

"Muscles of the foot and leg." The movements of the three joints between the foot and leg take place in harmony. The following is the order observed. The

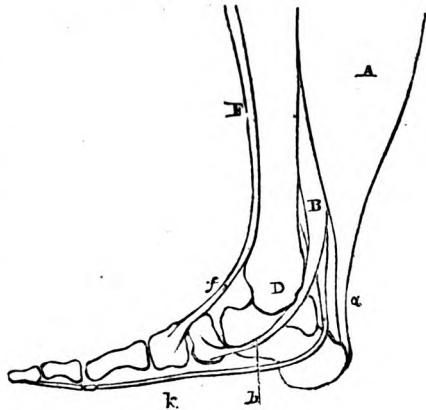


Fig. 1, THE PRINCIPAL MUSCLES.

rising of the heel is accompanied by a rolling of the foot inward, and by an increased flexure of the plantar arch; and the raising of the toes is accompanied by a rolling of the foot outward and a straightening of the sole.

"The first series of the movements

just described is effected, mainly, by three muscles. Of these, one (A, fig. 1) raises the heel, while the other two (B, fig. 1, and C, fig. 2) raise and support the ankle. The muscle which acts upon the heel is one of the largest and most powerful in the body, and well it may be, for

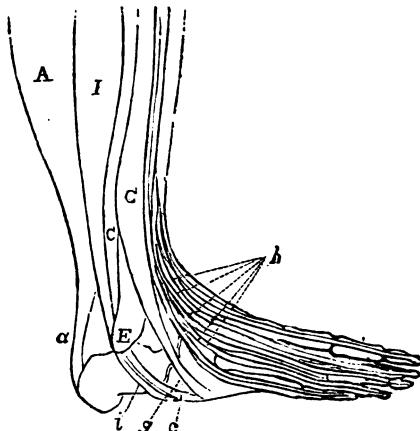


Fig. 2, MUSCLES OF THE FOOT.

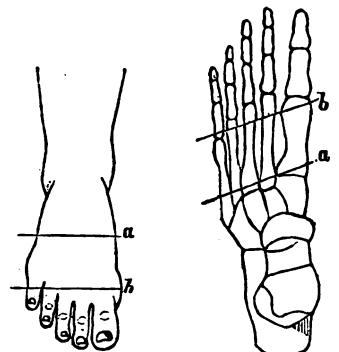
in raising the heel it has to raise the whole weight of the body. Its fibres, accumulated at the middle and upper part of the leg, form the "calf;" below, they taper into a thick tendon (*a*) connected with the hinder extremity of the heel-bone, and called the *Tendo Achilles*. The name, it need scarcely be said, refers to the tale of Thetis holding her son Achilles by this part when she dipped him in the river Styx. Her hand prevented the part from coming in contact with the water, and so it did not partake of the invulnerability which was conferred upon the rest of his body by the immersion. We read, accordingly, he was finally killed by a wound in the heel.

"The other two muscles, (B and C) also descend from the leg and terminate in tendons (*b* and *c*) which pass, one on either side, behind the projections (*d* and *e*) which we call respectively the inner and outer ankle, to the inner and outer edges of the instep. They assist to raise the ankle, and support it so as to prevent it swerving from side to side; and they permit it to play to and fro upon them, like a pulley upon ropes running under it, in a safe and easy manner. The in-

ner (*b*, fig. 1) of the two tendons passes, as before mentioned, beneath the head of the key-bone, and adds greatly to the strength of the arch. It is, moreover, the chief agent in effecting the two movements which are associated with the elevation of the heel, *viz.*, the turning of the sole inward and the flexion of the foot.

"The second series of movements—the raising the toes, the turning the sole downward, and the straightening the foot, is effected by two muscles (F, fig. 1, and G, fig. 2), the tendons (*f* and *g*) of which pass, one in front of the inner ankle, and the other in front of the outer ankle, to the respective edges of the instep. These require much less power than their opponents, and the muscles on the front of the leg are, therefore, smaller and weaker than those behind."

Here are outlines of natural, or well formed feet, not yet spoiled by squeezing in tight shoes.



Figs. 3 and 4.

Figs. 5 and 6 are correct representations of feet which have been crippled for life, by wearing boots and shoes not adapted to them.

Figs. 7 and 8 show how the foot should be, and how it usually is. No one should ever wear a narrow-toed shoe.

Fig. 9 may be regarded as the ordinary shape of the adult foot, and the boot or shoe should be made to fit the foot, and the foot not compelled to fit the boot. Place the foot on a sheet of paper; then, with pencil, draw a line around the foot,

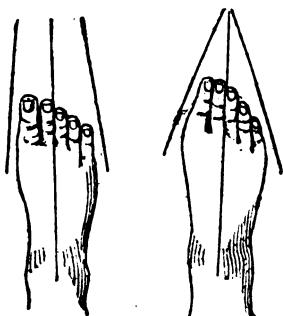
and have a last made to correspond therewith. This will give you a boot or shoe, which you can wear without suffering from the formation of corns, bunions, or other unpleasant distortions.



Figs. 5 and 6.

Describing the present fashions in boots and shoes, a contemporary says:

The new styles of boots and shoes show that Fashion can have lucid moments, after all, when, repenting of her many follies, she bestows a grain of common-sense upon the ideas relating to the per-



Figs. 7 and 8.

sonal comfort of her victims. At any rate, it is not Fashion's fault now if women persist in walking on their great toes like a ballet-dancer, or if the children hop through life on crooked legs, a very natural consequence of these high heels, as all unfashionable observers of human nature have remarked ere now. It has been of no use to preach sermons on deformity while these distracting kid distortions were not confiscated by parental authority; for to see a pair of dainty

buttoned boots tilted up on three-inch heels was to groan and succumb, ignominiously give in, though a regiment of chiropodists stared one in the face.

But let the aching ones rejoice. Louis Quinze is not only dead, but so is his heel. True, a ghost of it remains—not enough of one, however, to "wobble" on, but just enough to preserve the arch of the instep and "keep you out of the mud." The most elegant styles for ladies this season are the recently imported French boots made of delicate black kid, with broad soles with or without an interlining of cork. They are of exquisite beauty and finish, with two changes to mark them from last season's fashions.

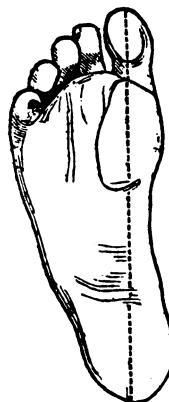


Fig. 9.

The foxings are cut square and low across the foot, while the upper portion only just covers the ankle. French kid boots of a simpler style come in three grades, the first with a thin sole suitable for dancing, the second of medium thickness, and the third a street boot. For all of these the square toe with rounded corners is used entirely, but in the imported French kid the toe is rounder. An excellent walking boot for every-day wear is made of goatskin and soft kid, with a broad sole and a heel of only three lifts. Party boots of black satin are now ornamented with a tiny bow that does not destroy the outline of the foot.

THE RICHELIEU

Is made of black or bronze kid, with a moderate heel. An elastic like that of

a Congress boot is inserted over the instep, and by this means it is held strongly and firmly in place. Bows of a rich gros grain silk, with plain or cut steel slides, conform to the high instep, and give an exquisite curve to the foot. A bronze pair that has four large flat bows of silk fastened with cut-steel slides is perhaps the loveliest of these dainty shoes. Another pretty pair is made of gray morocco with black heels, and trimmed with black ribbon an inch wide. Three-button kid shoes are to be fashionable for the street this Summer, and their proper companions are colored silk stockings, or striped Balbriggans.

One of the best inventions for young girls and children is the sea-side and country boot. It is made of fine goat-skin, foxed with French calf, thick, broad sole, and low heel; and as a specimen of high finish and durability deserves more than a passing notice, though as a model of reformation it already speaks loudly for itself. A moment's reflection tells one that health, and necessarily grace, depend greatly on just such boots as these, and that the best physical economy is prevention. Careful mothers may well rejoice, then, in this downright sensible fashion that has shod their children with strength and substance.

THE LATEST STYLES FOR BOYS.

Boys are now favored mortals; and, if they doubt it, let them contemplate those beautiful boots made expressly to try their destructive powers. The latest styles are Balmorals, made of calf, with thick soles, intended for country wear; and a more elegant buttoned boot, also of calf, with the Scotch welt and box toes. They are considered the best boots now manufactured, and surely a purely disinterested spectator might be pardoned a thrill of horror in imagining anything so stout and formidable on a boy who sometimes kicks. [We object to very thick soles. ED. S. OF H.] Even little three-year old has his walking boots as well as his older brothers, and they are miniature studies of those worn by the "grown ups." A pretty style is of a delicate calf

or morocco, with the foxings cut in little scallops over the instep. Let it be borne in mind in all these new boots, the excellent fashion of broad soles and heels reigns supreme, both ladies and children's.

STYLES FOR GENTLEMEN.

Dealers now offer one great attraction—a shoe for hot weather, and a shoe, too, that the swellest swell would admire, and an old fogy, given to gout, would remember with gratitude the rest of his life. Of course it is French. The shape is peculiar, but made of the softest kid, of an elegant finish; it is both stylish and easy. Gentlemen who do not take kindly to embroidered or morocco slippers, will find this French shoe an admirable substitute for house wear.

Another novelty is a Congress boot, for evening, made with patent-leather foxings cut square across the foot, with silk tops to simulate the latest fashion of black silk stockings and pumps. [We do not approve the patent-leather part of it. It is impervious to air, and, like rubber, causes the feet to sweat.] A very handsome French button boot comes with a single sole or the intersoling of cork, and another Congress boot is made of calf and French kid, intended for Summer wear. Then there are the French wide-strap shoes, and the Oxfords for every-day, and patent-leather boots of a superb finish for dancing.

[So much for the fashionable view of Boots and Shoes. We commend the change from high to low heels, and the wide from the narrow soles. When we find Fashion conforming to common-sense, and to health, we are in favor of her; otherwise, decidedly not.]

A LAZY, complaining dyspeptic, meeting a stout and hearty friend, asked him what he did to make himself so strong and healthy. "I live on fruit alone," was his reply. "What kind of fruit do you eat?" "The fruit of industry, and I am never troubled with indigestion."

[Very good so far as it goes. But it does not hit ALL cases, some of the busiest-minded mortals living, are dyspeptic; while those who live more slowly, and work with the body, in the open air, are not troubled in this way. In our little book, "Digestion and Dyspepsia," we have covered the ground of cause and cure of this common malady.

CONFessions AND OBSERVATIONS OF SIR EDWARD LYTTON BULWER.*

I HAVE been a workman in my day. I began to write and to toil, and to win some kind of a name, which I had the ambition to improve, while yet little more than a boy. With strong love for study in books—with yet greater desire to accomplish myself in the knowledge of men, for sixteen years I can conceive no life to have been more filled by occupation than mine. What time was not given to the action was given to study; what time not given to study, to action—labor in both! To a constitution naturally far from strong, I allowed no pause or respite. The wear and tear went on without intermission—the whirl of the wheel never ceased. Sometimes, indeed, thoroughly overpowered and exhausted, I sought for escape. The physicians said, “Travel,” and I traveled. “Go into the country,” and I went. But in such attempts at repose all my ailments gathered round me—made themselves far more palpable and felt. I had no resource but to fly from myself—to fly into the other world of books, or thought, or reverie—to live in some state of being less painful than my own. As long as I was always at work it seemed that I had no leisure to be ill. Quiet was my hell.

At length the frame thus long neglected—patched up for a while by drugs and doctors—put off and trifled with as an intrusive dun—like a dun who is in his rights—brought in its arrears—crushing and terrible, accumulated through long years. Worn out and wasted, the constitution seemed wholly inadequate to meet the demand. The exhaustion of toil and study had been completed by great anxiety and grief. I had watched with alternate hope and fear the lingering and mournful death-bed of my nearest relation and dearest friend—of the person around whom was entwined the strongest affection my life had known—and when all was over, I seemed scarcely to live myself.

At this time, about the January of 1844, I was thoroughly shattered. The least attempt at exercise exhausted me. The nerves gave way at the most ordinary excitement; a chronic irritation of

that vast surface we call the mucous membrane, which had defied for years all medical skill, rendered me continually liable to acute attacks, which, from their repetition, and the increased feebleness of my frame, might at any time be fatal. Though free from any organic disease of the heart, its action was morbidly restless and painful. My sleep was without refreshment. At morning I rose more weary than I laid down to rest.

Without fatiguing you and your readers further with the *longa cohors* of my complaints, I pass on to record my struggle to resist them. I have always had a great belief in the power of the WILL. What a man determines to do, that, in ninety-nine cases out of the hundred, I hold that he succeeds in doing. I determined to have some insight into a knowledge I had never attained since manhood—the knowledge of health.

I resolutely put away books and study, sought the airs which the physicians esteemed the most healthful, and adopted the strict regimen on which all the children of *Aesculapius* so wisely insist. In short, I maintained the same general habits as to hours, diet (with the exception of wine, which in moderate quantities seemed to me indispensable,) and, so far as my strength would allow, of exercise, as, I found afterwards, instituted at hydropathic establishments. I dwell on this to forestall in some manner the common remark of persons not well acquainted with the medical agencies of water—that it is to the regular life which water-patients lead, and not to the element itself, that they owe their recovery. Nevertheless, I found that these changes, however salutary in theory, produced little, if any, practical amelioration in my health. All invalids know, perhaps, how difficult, under ordinary circumstances, is the alteration of habits from bad to good. The early rising, the walk before breakfast, so delicious in the feelings of freshness and vigor which they bestow upon the strong, often become punishments to the valetudinarian. Headache, languor, a sense of weariness over the eyes, a sinking of the whole system towards noon, which seemed impiously to demand the dangerous aid of stimulants, was all that I obtained by the morning breeze and the languid stroll

* Originally published anonymously, under the title of *Confessions of a Water-Cure Patient*, in the *New Monthly Magazine* (London) then edited by Thomas Campbell, the poet.

RON NELL
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THE SCIENCE OF HEALTH.

[Aug.]

by the sea-shore. The suspension from study only afflicted with intolerable *ennui*, and added to the profound dejection of the spirits. The brain, so long accustomed to morbid activity, was but withdrawn from its usual occupations to invent horrors and chimeras. Over the pillow, vainly sought two hours before midnight, hovered no golden sleep. The absence of excitement, however unhealthily, only aggravated the symptoms of ill-health.

It was at this time that I met by chance, in the library at St. Leonard's, with Captain Claridge's work on the "Water Cure," as practised by Priessnitz at Gräfenberg. Making allowance for certain exaggerations therein, which appeared evident to my common sense, enough still remained not only to captivate the imagination and flatter the hopes of an invalid, but to appeal with favor to his sober judgment. Till then, perfectly ignorant of the subject and the system, except by such vague stories and good jests as had reached my ears in Germany, I resolved at least to read what more could be said in favor of the *ariston udor*, and examine dispassionately into its merits as a medicament. I was then under the advice of one of the first physicians of our age. I had consulted half the faculty. I had every reason to be grateful for the attention, and to be confident in the skill, of those whose prescriptions had, from time to time, flattened my hopes and enriched the chemist. But the truth must be spoken—far from being better, I was sinking fast. Little remained to me to try in the great volume of the herbal. Seek what I would next, even if a quackery, it certainly might expedite my grave, but it could scarcely render life—at least, the external life—more unjoyous. Accordingly, I examined, with such grave thought as a sick man brings to bear upon his case, all the grounds upon which to justify myself—an excursion to the snows of Silesia. But I own that, in proportion as I found my faith in the system strengthen, I shrank from the terrors of this long journey to the rugged region, in which the probable lodging would be a laborer's cottage, and in which the Babel of a hundred languages, (so agreeable to the healthful delight in novelty—so appalling to the sickly despondency of a hypochondriac)—would murmur and growl over a public table, spread with no tempting condiments. Could I hope to find healing in my own land, and not too far from my own doctors, in case of failure, I might indeed solicit the watery gods—but the journey! I who scarcely lived through a day without leech or potion—

the long, gelid journey to Gräfenberg,—I should be sure to fall ill by the way—to be clutched and mismanaged by some German doctor, to deposit my bones in some dismal church-yard on the banks of the Father Rhine.

While thus perplexed, I fell in with one of the pamphlets written by Dr. Wilson, of Malvern, and my doubts were solved. Here was an English doctor, who had himself known more than my own sufferings, who, like myself, had found the pharmacopeia in vain, who has spent ten months at Gräfenberg, and left all his complaints behind him—who, fraught with the experience he had acquired, not only in his own person, but from scientific examination of the cases under his eye, had transported the system to our native shores, and who professed the proverbial salubrity of Malvern air and its holy springs, to those who, like me, had ranged in vain, from simple to mineral, and who had become bold by despair—bold enough to try if health, like truth, lay at the bottom of a well.

I was not then aware that other institutions had been established in England of more or less fame. I saw in Doctor Wilson the first transporter—at least, as a physician—of the Silesian system, and did not pause to look out for other and later pupils of this innovating German school.

I resolved then to betake myself to Malvern. On my way through town I paused, in the innocence of my heart, to inquire of some of the faculty if they thought the water-cure would suit my case. With one exception, they were unanimous in the vehemence their denunciations. Granting even that in some cases, especially of rheumatism, hydropathy had produced a cure, to my complaints it was worse than inapplicable—it was highly dangerous—it would probably be fatal. I had not stamina for the treatment—it would fix chronic ailments into organic disease—surely, it would be much better to try what I had not yet tried. What I had not yet tried? A course of prussic acid! Nothing was better for gastric irritation, which was no doubt the main cause of my suffering! If, however, I were obstinately bent upon so mad an experiment, Doctor Wilson was the last*

* Why? Why was he "the last person" to go to?" There was one good and substantial reason for giving him this distinction. He was the last, for the same reason that, in the judgment of the College of Cardinals at Rome, MARTIN LUTHER would have been the last person in the world for any man, with mind diseased by being troubled with religious doubts, to have recourse to. Dr. Wilson had proved himself a *renegade*, the first of a long list of *renegades*. Utterly broken down in health, a hopeless wreck, whom none of his professional brethren could do anything for—he, a regular practitioner of eminent standing, had been com-

person I should go to. I was not deterred by all these intimidations, nor seduced by the salubrious allurements of the prussic acid under its scientific appellation of hydrocyanic. A little reflection taught me that the members of a learned profession are naturally the very persons least disposed to favor innovation upon the practices which custom and prescription have rendered sacred in their eyes. A lawyer is not the person to consult upon bold reforms in jurisprudence. A physician can scarcely be expected to own that a Silesian peasant will cure with water the diseases which resist an armament of phials. And with regard to the peculiar objections to Doctor Wilson, I had read in his own pamphlet attacks upon the orthodox practice sufficient to account for—perhaps to justify—the disposition to depreciate him in return.

Still my friends were anxious and fearful; to please them I continued to inquire, though not of physicians, but of patients. I sought out some of those who had gone through the process. I sifted some of the cases of cure cited by Doctor Wilson. I found the account of the patients so encouraging, the cases quoted so authentic, that I grew impatient of delay. I threw physic to the dogs, and went to Malvern.

It is not my intention, Mr. Editor, to detail the course I underwent. The different resources of water as a medicament, are to be found in many works easily to be obtained, and well worth the study. In this letter I suppose myself to be addressing those as thoroughly acquainted with the system as myself was at the first, and I deal therefore in generals.

The first point which impressed and struck me was the extreme and utter innocence of the Water-Cure in skilful hands—in any hands indeed not thoroughly new to the system. Certainly when I went, I believed it to be a kill or cure system. I fancied it must be a very violent remedy—that it doubtless might effect great and magical cures—but that if it failed it might be fatal. Now, I speak not alone of my own case, but of the immense number of cases I have seen—patients of all ages—all species and genera of disease—all kinds and

peled to seek alleviation at Gräfenberg; he did not allow himself to hope for more. In less than a year's residence there he was *made whole*, and, on his return to England, had the manliness to bear witness to the truth, to testify to facts, in his own case, and in hundreds of others, which had come under his observation and close scrutiny. The Apostate! An orthodox practitioner, of finished education, of indisputable standing, of eminent qualifications, of extensive practice, to recognize material facts, while orthodox creeds and superstitions—and those in greatest variety and diversity were in the counter scale, to make a selection from.

conditions of constitution, when I declare, upon my honor, that I never witnessed one dangerous symptom produced by the Water-Cure, whether at Dr. Wilson's or the other Hydropathic Institutions which I afterwards visited. And though unquestionably fatal consequences might occur from gross mismanagement, and as unquestionably have so occurred at various establishments, I am yet convinced that water in itself is so friendly to the human body, that it requires a very extraordinary degree of bungling, of ignorance and presumption, to produce results really dangerous; that a regular practitioner does more frequent mischief from the misapplication of even the simplest drugs, than a water-doctor of very moderate experience does, or can do, by the misapplication of his baths and friction. And here I must observe, that those portions of the treatment which appear to the uninitiated as the most perilous, are really the safest, and can be applied with the most impunity to the weakest constitutions; whereas those which appear, from our greater familiarity with them, the least startling and most innocuous, are those which require the greatest knowledge of general pathology and the individual constitution. I shall revert to this part of my subject before I conclude.

The next thing that struck me was the extraordinary ease with which, under this system, good habits are acquired and bad habits relinquished. The difficulty with which, under orthodox medical treatment, stimulants are abandoned is here not witnessed. Patients accustomed for half a century to live hard and high, wine-drinkers, spirit-bibbers, whom the regular physician has sought in vain to reduce to a daily pint of sherry, here voluntarily resign all strong potations, after a day or two cease to feel the want of them, and reconcile themselves to water as if they had drank nothing else all their lives. Others who have had recourse for years and years to medicine—their potion in the morning, their cordial at noon, their pill before dinner, their narcotic at bed-time, cease to require these aids to life, as if by a charm. Nor this alone. Men to whom mental labor has been a necessity—who have existed on the excitement of the passions and the stir of the intellect—who have felt, these withdrawn, the prostration of the whole system—the lock to the wheel of the solid machine—return at once to the careless spirits of the boy in his first holiday.

Here lies a great secret; water thus skilfully administered is in itself a wonderful excitement: it supplies the place of all others—it operates powerfully and

rapidly upon the nerves, sometimes to calm them, sometimes to irritate, but always to occupy. Hence follows a consequence which all patients have remarked—the complete repose of the passions during the early stages of the cure; they seem laid asleep as if by enchantment. The intellect shares the same rest; after a short time mental exertion becomes impossible; even the memory grows far less tenacious of its painful impressions, cares and griefs are forgotten; the sense of the present absorbs the past and future; there is a certain freshness and youth which pervade the spirits, and live upon the enjoyment of the actual hour. Thus the great agents of our mortal wear and tear—the passions and the mind—calmed into strange rest—Nature seems to leave the body to its instinctive tendency, which is always towards recovery. All that interests and amuses is of a healthful character; exercise, instead of being an unwilling drudgery, becomes the inevitable impulse of the frame braced and invigorated by the element. A series of reactions is always going on—the willing exercise produces refreshing rest, and refreshing rest willing exercise. The extraordinary effect* which water taken early in the morning produces on the appetite is well known amongst those who have tried it, even before the Water-Cure was thought of; an appetite it should be the care of the skilful doctor to check into moderate gratification; the powers of nutrition become singularly strengthened, the blood grows rich and pure—the constitution is not only amended—it undergoes a change.

The safety of the system, then, struck me first;—its power of replacing by healthful stimulants the morbid ones it withdrew, whether physical or moral, surprised me next;—that which thirdly impressed me was no less contrary to all my preconceived notions. I had fancied that, whether good or bad, the system must be one of great hardship, extremely repugnant and disagreeable. I wondered at myself to find how soon it became so associated with pleasurable and grateful feelings as to dwell upon the mind among the happiest passages of existence. For my own part, despite all my ailments, or whatever may have been my cares, I have ever found exquisite pleasure in that sense of *being* which is as it were the conscience, the mirror of the soul. I have known hours of as much and as vivid happiness as perhaps

can fall to the lot of man; but among all my most brilliant recollections I can recall no periods of enjoyment at once more hilarious and serene than the hours spent on the lonely hills of Malvern—none in which nature was so thoroughly possessed and appreciated. The rise from a sleep as sound as childhood's—the impatient rush into the open air, while the sun was fresh and the birds first sang—the sense of an unwonted strength in every limb and nerve, which made so light of the steep ascent to the holy spring—the delicious sparkle of that morning draught—the green terrace on the brow of the mountain, with the rich landscape wide and far below—the breeze that once would have been so keen and biting, now but exhilarating the blood, and lifting the spirits into religious joy; and this keen sentiment of present pleasure rounded by a hope sanctioned by all I felt in myself, and nearly all that I witnessed in others—that that very present was but the step—the threshold—into an unknown and delightful region of health and vigor;—a disease and a care dropping from the frame and the heart at every stride.

I staid some nine or ten weeks at Malvern; and business from which I could not escape, obliging me then to be in the neighborhood of town, I continued the system seven weeks longer under Dr. Weiss, of Petersham; during this latter period the agreeable phenomena which had characterized the former, the cheerfulness, the *bien aise*, the consciousness of returning health vanished; and were succeeded by great irritation of the nerves, extreme fretfulness, and the usual characteristics of the constitutional disturbance to which I have referred. I had every reason, however, to be satisfied with the care and skill of Dr. Weiss, who fully deserves the reputation he has acquired, and the attachment entertained for him by his patients; nor did my judgment ever despond or doubt of the ultimate benefits of the process. I emerged at last from these operations in no very portly condition. I was blanched and emaciated—washed out like a thrifty housewife's gown—but neither the bleaching nor the loss of weight had in the least impaired my strength; on the contrary, all the muscles had grown as hard as iron, and I was become capable of great exercise without fatigue; my cure was not effected, but I was compelled to go into Germany. On my return homewards, I was seized with a severe cold which rapidly passed into high fever. Fortunately I was within reach of Doctor Schmidt's magnificent hydropathic establishment at Boppard: thither I caused

* As to this "extraordinary effect," together with the physiological explanations thereof, see (p. 20) the little work "The Practice of the Water-Cure," by James Wilson, M.D. and James Manby Gully, M.D. Price 50 cts. S. R. Wells, Publisher, 889 Broadway, New York.

myself to be conveyed ; and now I had occasion to experience the wonderful effect of the Water-Cure in acute cases ; slow in chronic disease, its beneficial operation in acute is immediate. In twenty-four hours all fever had subsided, and on the third day I resumed my journey, relieved from every symptom that had before prognosticated a tedious and perhaps alarming illness.

And now came gradually, yet perceptibly, the good effects of the system I had undergone; flesh and weight returned; the sense of health became conscious and steady; I had every reason to bless the hour when I first sought the springs of Malvern. And here, I must observe, that it often happens that the patient makes but slight apparent improvement, when under the cure, compared with that which occurs subsequently. A water-doctor of repute at Brussels, indeed, said frankly to a grumbling patient, "I do not expect you to be well while here—it is only on leaving me that you will know if I have cured you."

It is as the frame recovers from the agitation it undergoes, that it gathers round it power utterly unknown to it before—as the plant watered by the rains of one season, betrays in the next the effect of the grateful dews.

I had always suffered so severely in Winter, that the severity of our last one gave me apprehensions, and I resolved to seek shelter from my fears at my beloved Malvern. I here passed the most inclement period of the Winter, not only perfectly free from the colds, rheum, and catarrhs, which had hitherto visited me with the snows, but in the enjoyment of excellent health; and I am persuaded that for those who are delicate, and who suffer much during the Winter, there is no place where the cold is so little felt as at a Water-Cure establishment. I am persuaded also, and in this I am borne out by the experience of most water-doctors, that the cure is most rapid and effectual during the cold season—from Autumn through the Winter. I am thoroughly convinced that consumption in its earlier stages can be more easily cured, and the predisposition more permanently eradicated by a Winter spent at Malvern, under the care of Doctor Wilson, than by the timorous flight to Pisa or Madeira. It is by hardening rather than defending the tissues that we best secure them from disease.

And now, to sum up, and to dismiss my egotistical revelations, I desire in no way to overcolor my own case; I do not say that when I first went to the Water-Cure I was affected with any disease immediately menacing to life—I say only

that I was in that prolonged and chronic state of ill-health, which made life at the best extremely precarious—I do not say that I had any malady which the faculty could pronounce incurable—I say only that the most eminent men of the faculty had failed to cure me. I do not even now affect to boast of a perfect and complete deliverance from all my ailments—I cannot declare that a constitution naturally delicate has been rendered Herculean, or that the wear and tear of a whole manhood have been thoroughly repaired. What might have been the case had I not taken the cure at intervals, had I remained at it steadily for six or eight months without interruption, I cannot do more than conjecture, but so strong is my belief that the result would have been completely successful, that I promise myself, whenever I can spare the leisure, a long renewal of the system.—These admissions made, what have I gained meanwhile to justify my eulogies and my gratitude?—an immense accumulation of the *capital of health*. Formerly it was my favorite and querulous question to those who saw much of me, "Did you ever know me twelve hours without pain or illness?"—Now, instead of these being my constant companions, they are but my occasional visitors. I compare my old state and my present to the poverty of a man who has a shilling in his pocket, and whose poverty is therefore a struggle for life, with the occasional distress of a man of £5,000 (\$25,000) a year, who sees but an appendage endangered or a luxury abridged. All the good that I have gained, is wholly unlike what I have ever derived either from medicine or the German mineral baths; in the first place, it does not relieve a single malady alone, it pervades the whole frame; in the second place, far from subsiding, it seems to increase by time, so that I may reasonably hope that the latter part of my life, instead of being more infirm than the former, will become—so far as freedom from suffering, and the calm enjoyment of external life are concerned—my real, my younger, youth. And it is this profound conviction which has induced me to volunteer these details, in the hope (I trust a pure and kindly one) to induce those, who more or less have suffered as I have done, to fly to the same rich and bountiful resources. We ransack the ends of the earth for drugs and minerals—we extract our potions from the deadliest poisons—but around us and about us, Nature, the great mother, proffers the Hygeian fount, unsealed and accessible to all. Wherever the stream glides pure, wherever the spring sparkles fresh, there, for the vast

proportion of the maladies which Art produces, Nature yields the benignant healing.

The remedy is *not* desperate; it is simpler, I do not say than any *dose*, but than any *course* of medicine—it is infinitely more agreeable—it admits no remedies for the complaint which are inimical to the constitution. It bequeaths none of the maladies consequent on blue pills and mercury—on purgatives and drastics—on iodine and aconite—on leeches and the lancet. If it cures your complaint, it will assuredly strengthen your whole frame; if it fails to cure your complaint, it can scarcely fail to improve your general system. As it acts, or ought, scientifically treated, to act, first on the system, lastly on the complaint, placing nature herself in the way to throw off the disease, so it constantly happens that the patients at a hydropathic establishment will tell you that the disorder for which they came is not removed, but that in all other respects their health is better than they ever remember it to have been. Thus, I would not only recommend it to those who are sufferers from some grave disease, but to those who require merely the fillip, the alternative, or the bracing which they now often seek in vain in country air or a watering-place. For such three weeks at Malvern will do more than three months at Brighton or Boulogne; for at the Water-Cure the whole life is one remedy; the hours, the habits, the discipline—not incompatible with gaiety and cheerfulness (the spirits of hydropathists are astounding, and in high spirits all things are amusement) tend perforce to train the body to the highest state of health of which it is capable.

The Water-Cure as yet has had this evident injustice—the patients resorting to it have mostly been desperate cases. So strong a notion prevails that it is a desperate remedy, that they only who have found all else fail have dragged themselves to the Bethesda Pools. That all thus not only abandoned by hope and the College, but weakened and poisoned by the violent medicines absorbed into their system for a score or so of years—that all should not recover is not surprising! The wonder is that the number of recoveries should be so great:—that every now and then we should be surprised by the man whose untimely grave we predicted when we last saw him, meeting us in the streets ruddy and stalwart, fresh from the springs of Gräfenberg, Boppard, Petersham, or Malvern.

Here then, O brother, O afflicted ones, I bid you farewell. I wish you one of the most blessed friendships man ever made

—the familiar intimacy with Water. Not Undine in her virgin existence more sportive and bewitching, not Undine in her wedded state more tender and faithful than the Element of which she is the type. In health may you find it the joyous playmate, in sickness the genial restorer and soft assuager. Round the healing spring still literally dwell the jocund nymphs in whom the Greek poetry personified Mirth and Ease. No drink, whether compounded of the gums and rosin of the old Falernian, or the alcohol and acid of modern wine, gives the animal spirits which rejoice the wine-drinker. Let him who has to go through severe bodily fatigue try first whatever—wine, spirits, porter, beer—he may conceive most generous and supporting; let him then go through the same toil with no draughts but from the chrystal lymph, and if he does not acknowledge that there is no beverage which Man concocts so strengthening and animating as that which God pours forth to all the children of Nature, I throw up my brief. Finally, as health depends upon healthful habits, let those who desire easily and luxuriously to glide into the courses most agreeable to the human frame, to enjoy the morning breeze, to grow epicures in the simple regimen, to become cased in armor against the vicissitudes of our changeful skies—to feel, and to shake off, light sleep as a blessed dew, let them, while the organs are yet sound, and the nerves yet unshattered, devote an autumn to the water-cure.

And you, O parents! who, too indolent, too much slaves to custom, to endure change for yourselves, to renounce for a while your artificial natures, but who still covet for your children hardy constitutions, pure tastes, and abstemious habits—who wish to see them grow up with a manly distain to luxury—with a vigorous indifference to climate—with a full sense of the value of health, not alone for itself, but for the powers it elicits, and the virtues with which it is intimately connected—the serene unfretful temper—the pleasures in innocent delights—the well-being that, content with self, expands in benevolence to others—you I adjure not to scorn the facile process of which I solicit the experiment. Dip your young heroes in the spring, and hold them not back by the heels. May my exhortations find believing listeners, and may some, now unknown to me, write me word from the green hills of Malvern, or the groves of Petersham, “We have hearkened to you—not in vain.” Adieu, Mr. Editor, the ghost returns to silence.

E. BULWER LYTTON.

SINS AGAINST THE BODY.

BY MRS. AMELIA E. BARR.

It is the duty of every one to be acquainted with the conditions on which alone he can have "a sound mind in a sound body;" and if some little trouble is involved in the pursuance of these conditions, "the game is worth the candle," since it is very certain that the mind must ask permission of the body to be healthy, happy, and successful.

Martial, the ancient epigrammist, says: "to be is not called Life, but to be well;" and Cicero, in his second book "De Officiis," gives us the true canon of a rational hygiene—"Preserve health by attention to the body, by temperance in living, and by refraining from sensuality."

Attention to the body is both positive and negative; we sin against it both by omission and commission. But the first of all its requirements are pure air to breathe. The merest tyro in hygienic matters, knows that air deficient in oxygen, and surcharged with carbonic acid gas from breathing lungs, cannot either properly purify the blood, evolve heat, or develop vital force; and that, under such circumstances, the unpurified blood is sent coursing through heart, arteries and veins, becoming more and more vitiated at every revolution; until, if continued, typhus, cholera, or dysentery supervene.

I do not think that the neglect in this matter is as persistent and criminal as it was a few years ago. The line upon line and precept upon precept of hygienic reformers *have done good*. The homes of both rich and poor are improved, and the mass of people more sensitive to their rights in this respect. The neglect of this first law of health is chiefly remarkable in churches, theatres, halls of public amusement, etc. There, the amount of vitiated air is largely increased by the gas illumination; and before the close of any ordinary play or opera, it is very probable that at least *one-eighth* part of all the air in the building has already passed through our

neighbor's lungs. Thus we constantly witness the most fastidious individuals, who would scruple to eat what their neighbor's hand had touched, inhale without objection, the breath issuing from his nostrils.

Dr. Franklin used to take what he calls an *air bath* every morning. He argued that the skin was a breathing organ, and should not only be kept clean, but should also be exposed to the embraces of the pure air, at least five or ten minutes every twenty-four hours; combined with a cold sponging and the use of the coarse towel, there can be no doubt of its excellence. Southern hygienists advise a *sun bath* as equally good, provided the head be sheltered.

Cleanliness is next to godliness. If a man cannot pray, he can wash; and there is no doubt but what

"From the body's purity, the mind
Receives a secret, sympathetic aid,"

and, as good George Herbert says, "the mind's sweetness will bear its operation upon the body. There is even something unnatural and unbelievable in a dirty Christian.

The want of physical exercise is another sin against the body. Tens of thousands suffer from exercising the brain too much and the muscular system too little. "Where the stimulus is, there flows the blood;" and if the blood is healthy, *there* is activity of nutrition, perfection of development, vigor of function. But exercise, to be really healthy, should be of such a kind as to set the whole frame in motion, rouse to action the nervous centres, and bring every part alternately into activity.

In all exercise, however, the importance of *mental* stimulus is very great; for it is comparatively valueless, unless the idea of taking it for health is lost in the interest of the occasion. The felon at his task has plenty of exercise, but it has not the good influence of the row on the

river, the walk with a friend, the holiday in the woods.

The love of children for action, shows what Nature thinks about it; and to the aged it is no less important; for, if judiciously used, it will retard, if not prevent, "that second childishness and mere oblivion," which too often clouds the last days of human life.

The hygienic laws regarding food do not need "twelve tables;" they are few and simple, and easily enforced by sensible men and women. First, it must be understood that oily, fatty elements, heat the body; glutinous or plastic elements nourish it. The first then fortify the system against cold; the second repair the waste of the tissues, and give strength to the muscles and nervous system. Climate and circumstances must, therefore, vastly alter cases in their use, and a man's own reason is the only adviser needed.

Whatever food is eaten, it should never be eaten very hot; it should be thoroughly masticated; it should be simple in character and cooking; it should only be eaten in quantities commensurate with the wants of the system. Man is an omnivorous animal, and may eat almost anything, if he does not exceed; whereas rigid vegetarians, by excess in quantities, may induce serious and distressing consequences.

The sense of hunger is the natural index as to both time and quantity, but the digestive organs should certainly be allowed to dispose of one meal before they are cumbered with another. People in active life cannot be quite regular; excessive labor may demand an earlier meal one day than is necessary another—a large margin in these things is left for discretion. But little children and old persons should, in all dietary matters, make order their first law.

No laws are so obvious as those of diet, none are so flagrantly broken. And this, in spite of knowledge, and in spite of certain punishment; for, though we oppress nature with apparent impunity for years, she will, at last, present her bill to a broken constitution.

As a rule, pure water is the best of all drinks; but very little fluid ought to be taken during meals. Hot, watery soups before a solid dinner, dilute the gastric juices, and tea and coffee in large quantities have the same effect. But, when drinks are taken as stimulants, they come under the severest condemnation. If taken to increase the vital force, the extra exertion made under their influence, is made at the expense of the constitution; and the oftener it is repeated, the more permanent the debility, which is its certain re-action. In no case can stimulants be a substitute for solid nourishing food.

But the organs and functions of animal life need something beside air, exercise, and food. They must have periods of complete rest. By protracted effort, the eye, the ear, the brain, etc., all lose their sensibility. Then sleep is to organic life what food is to animal life. All that food is to the blood, sleep is to the sensation, thought and muscular activity.

When the system is perfectly healthy, sleep suspends all the powers of animal life; not the slightest consciousness exists. Such sleep is the surest guarantee of longevity. The continued action of the mind on any subject, will make the sleep dreamy and unrefreshing. Sluggish drowsiness relaxes the solids, and induces languor and debility, while excessive wakefulness weakens the brain and the whole system. Nothing is so excellent for soul and body, as a good solid bar of sleep between day and day, provided it be taken in a room thoroughly ventilated, and on a sensibly hard bed; for when a person feels such an enormity as a feather bed a necessity, he is in a very bad physiological condition, and the sooner he gets out of it the better.

Something must be said on the influence of the mind and the *Will* upon hygienic conditions. The *Will*, is indeed the guardian of the body's interests. Thus, though the food, when once within the stomach, is beyond control, the *Will* has the power of selecting the quality and quantity of it. Again, though respiration is an involuntary act, the *Will* can

promote its efficiency by selecting pure air, or accelerating it by exercise. The Will, then, is a kind of sentinel over the organic functions.

I have already mentioned the good influence of mental stimulus in physical exercise, and every one knows how vehemently mental excitement disturb organic functions. Grief, anger, fear, disappointment, throw the body into sudden tumultuous mutiny. But though for an hour or two there may be confusion and panic, a *Will* under thorough discipline will speedily recover its sudden surprise, and regain its equanimity.

The self-command of soldiers and

statesmen, shows the power that can be acquired by the Will over the body, and the advantages of such a discipline in a hygienic point of view, can hardly be overestimated. Under control like this, the ills of life are only like the transient sorrows of childhood—

“Burs on youth’s glittering raiment hem.”

When the sympathy between the nervous system of organic life and the mind maintains this delightful character—which is the natural result of observing the laws of health—then, and only then, a man may be said to have “a sound mind in a sound body.”

HYGIENE.

BY POLLY A. SMITH, M. D.

In attempting to write an essay upon the subject of Hygiene, as employed in the treatment and cure of disease, we are fully aware of the magnitude of the task before us and the complications involving such an undertaking; and which will be obvious to all when considering that it is a subject of such common import, and a system in which the empirics of all ages have dabbled; and, at the same time, one of which so little is truly understood and appreciated by people in general, physicians not excepted.

But we would not wish to be understood as assuming to proffer ideas in advance of medical science, as we only purpose treating the subject from our own stand-point. Or, in other words, to show that we consider Hygiene, not only as pertaining to the preservation of health, but as an agency in the treatment and cure of disease. In short, we appreciate Hygiene as constituting a rational and methodical use of every essential to life in a state of disease as well as in health.

We have no standard authority on the science of Hygiene (in English); no single work, no manual, even, to which we can refer. But its life-giving and health-restoring principles are scattered through numerous volumes, rich in all the truths and wonders of Nature and of Science;

but, as we have neither time nor opportunity for perusal, we must be content to draw from our own limited store of information wherewith to illustrate our theory.

Hygiene derives its name from Hygeia, the Goddess of Health; who, according to ancient mythology, presides over the department of human life and longevity. As a preservative art, Hygiene has been practiced from the earliest times. There were treatises written upon the subject before the days of Hippocrates, though based upon what is called empirical rules. And it is evident that he recognized the same, as he attributed great efficacy to the proportionate use of “Aliment, Air, Exercise, Rest, Sleep and Wakefulness, the passions and affections of the mind;” though Galen was afterwards pleased to term these agencies “Non-Naturals.” But the rapid strides which Natural Philosophy, Chemistry, and Physiology have made during the last quarter of a century or more, has put quite a different phase upon the subject; and men of liberal minds, of thought and investigation, are coming to attribute more virtue thereto than was formerly recognized.

Hygiene was defined to be that branch of medicine which designated the conditions upon which health depended, and

the means by which it might be sustained in all its virtue and purity, which was synonymous with calling it a preservative art. It remained within this limit until Physiology began to be studied; then, although retaining its empirical foundation, it commenced to apply physiological discoveries to the improvement of health, and to test its own rules by this new light. Dr. Parker of England says, "Hygiene is gradually becoming an art based upon the science of Physiology, and with whose future it is identified." The question may arise as to whether Hygiene has a legitimate right to the broad range which we have assigned to it, but we think Physiology and Pathology fully substantiate our position. Physiology studies the operations which go on in the healthy organism, investigating the vital properties, actions, and processes. Pathology studies the same operations when disordered or perverted. In consulting Physiology, we find that whenever or wherever Hygienic laws and rules are violated, physiological observations and investigations are obstructed. Dr. Parker again says, "If we had a perfect knowledge of the laws of life, and would apply them in a perfect system of hygienic rules, disease would be impossible."

By his testimony, then, we see that Hygiene forms rules which will not only prevent the cause of disease, but render the human system more able to withstand its attacks. And whereas in the former case he assigns to it the office of exponent of Physiology, in this case it becomes the servant of Pathology. In consulting Pathology, we find sufficient evidence to warrant us in asserting, that the great number of diseases which affect the human organism, and the vast variety of causes leading thereto, are wholly due to deviations from the strict regimen which Hygiene arbitrarily enforces; any violation of which is sure to be visited with pain, sickness, and premature death.

By the thorough investigations and deep researches of pathologists, to ascertain beyond doubt the true nature and cause of disease, they have become cog-

nizant of the above fact. Hence the weight that is given to prophylactic treatment. Many physicians admit that the prospect of diminishing the mortality from certain diseases, relates more to the prevention than to the cure of the same. It is needless to dwell upon Hygiene as a preservative or preventive art, but only to show that it is equally efficient in the treatment and cure of disease. Dr. Flint says, "It is confessedly a difficult task to define exactly what disease is." But the common acceptation of the term, is that condition of the human system wherein the functions do not perform their office with regularity and harmony. If, by any means, the minute tubes in the integument become closed so that they cannot throw off the worn-out particles of matter; or the respiratory organs become restricted in their action so as to prevent their throwing off carbonic acid and taking in oxygen; or the digestive apparatus becomes overtaxed by too great a quantity of food and drink, or by innutritious and indigestible substances; inharmony and irregularity in the action of nearly every function of the body is the result. The stomach is weak and irritable, the liver torpid, the intestinal canal dormant or irregular in its action, the kidneys clogged, the lungs incompetent to perform their office, and thus the whole machinery is thrown out of order. In this condition of things, Nature, true to herself, rises in the dignity of her might, and makes an effort to vindicate her rights; but the opposing forces are often too great for her strength. Finding her laws violated, her supplies cut off, her outlets closed, and the sanctity of her whole domain invaded by bold and unwarrantable intruders, apparently incensed, she renews her efforts; and, summoning all her energies, a desperate struggle ensues. Her powers being roused into too violent action, the result is a high state of inflammation termed fever, agonizing pain, rapid pulse, and not unfrequently delirium. This state of the system is usually denominated acute disease. After repeated efforts of nature to assert her rights and resume her wonted control, the enemy

beating no retreat, her strength becomes diminished and her resistance less powerful. And, though she does not cease her efforts to reinstate herself, she is wholly inadequate to overcome the invading host. This condition is termed chronic disease. Nature is energetic and persistent in her duty, nor yields her sacred sovereignty until the last vital spark is extinguished, and death ends the contest.

In the simple form of disease, nature is usually ample to remove all obstructions; but in acute and chronic forms, Hygiene is requisite to perform what nature unaided cannot accomplish. The agencies which different writers assign to the department of Hygiene, are Air, Light, Heat, Cold, Electricity, Water, Diet, Rest, Exercise, and some include various chemical agents in the category. The laws which govern their use and application take cognizance of temperature, ventilation, clothing, cleanliness; mental, moral, physical, and intellectual influences, with regularity and system in the administration of the above-named agencies. It is unnecessary for us to attempt to specify which agents are Neurotic, Hæmotic, Astringent or Eliminative in their action, or go into detail to show whether they have an Emetic, Cathartic, Tonic, Stimulant or Alterative effect on the human system, as it is well understood that any efficient remedy must possess one or more of these properties, when applied in case of disease. Dr. Flint says, "It is impossible to formulaize rules for the application of therapeutical measures. If this were possible, the practice of medicine would be a mechanical, not a rational art. Principles involved in their application require, and their successful operation depend, not only upon knowledge, but reasoning powers, good sense, and practical tact." Again he says, "The management of cases of disease, involves not only the exercise of judgment in the employment of therapeutical measures, but attention to hygienic regulations. It may safely be said that the greater success attending the management of disease now, than heretofore, is due as much to improve-

ments as regards diet, ventilation, etc., as to the more judicious use of remedial agencies." But Dr. Flint is not alone in his appreciation of Hygiene. Many of our most noted physicians are coming to see and understand that much of their success in treating disease, is due to the application of hygienic rules and measures. Some physicians consider water a specific in Fevers; others rely on air in Exanthematous diseases, and sun-light in Phthisis Pulmonalis. We find it stated in the Boston *Medical Journal*, that in London, in some of the hospitals, they are treating Syphilis successfully with water. We could give many similar illustrations and examples, but it would swell these pages beyond their limit.

Hygiene is often abused, and from the improper application of its agencies results accrue, as injurious to the human constitution as those from the injudicious administration of poisonous or powerful drugs. Hence, all who do not understand the nature and operation of remedies upon the human organism, had better not attempt their administration. For if we cannot assist nature, it is better to do nothing than to put obstacles in her way.

There are conditions where Hygiene is impracticable. Many persons cannot live hygienically if they would, owing to trades and avocations which they follow that are detrimental to life and health. Imperative circumstances often compel people to live in districts and localities that are fatal to life in all their surroundings and associations. But under these conditions, though inevitable, we need not despair; for there are agents which will in a great degree antidote these influences, and though not possible to preserve or restore health, may make life more enjoyable while it lasts, and even in some cases prolong it beyond our expectations.

An ancient writer once said, "The humors of the body have a stated and regular course, which imperceptibly guides our will. They co-operate with each other, and exercise successively an empire within us; so that they have a

considerable part in all our actions without our being able to know it." Then how important it is for the well-being of society, and for our personal happiness, that they be kept in a normal and healthy condition.

Socrates used to say, "It is pleasant to grow old with good health and a good friend." And what more valued friend can we have, than the one who shall insure to us the priceless boon of health? And that one is Hygiene.

[Polly A. Smith, M.D., is one of the most intelligent of the recent graduates of the New York Free Medical College for Women. Her Thesis,—Hygiene—given above, is the best we have seen, coming from any of the graduates of a drug-giving school; though we dissent from Dr. Smith's "Chemical Agents;" and claiming that, those whose "trades and avocations" prevent them from living hygien-

ically, can find no other agencies which are more compatible with the laws of life and health. Had Dr. Smith looked through the Catalogue of Books published at this office, she would have found a mass of Hygienic Literature, covering the entire ground of her discussion, a portion of which has been before the public during the past twenty years. Need we name the "Hydropathic Encyclopædia"—which is strictly Hygienic—the "New Hygienic Hand-Book?"—and more than a dozen besides?

On the whole, we congratulate the world on the evidences of "Progress and Improvement" seen in the rapid strides which are making in the medical schools towards common-sense, and a true Hygiene, in the Science of Life. Pretty soon, the world will come up to our teachings. Then, no more poisonous drugs will be given to poor, sick, and dying mortals. "The world moves."]

SIGNS OF MADNESS IN DOGS.

The British Medical Journal calls attention to the measures recommended by the Council of Hygiene of Bordeaux for the better protection of the people against the dangers of hydrophobia. It is well understood that the madness of dogs has a period which is premonitory and harmless. If these periods were generally known, the dogs could be put out of the way before they become dangerous. On this subject the Council of Hygiene has issued the following instructions:

A short time, sometimes two days, after madness has seized a dog, it creates symptoms in the animal which it is indispensable to recognize.

1. There is agitation and restlessness, and the dog turns himself continually in his kennel. If he be at liberty, he goes and comes and seems to be seeking something, when he remains motionless, as if waiting; then starts, bites the air as if he would catch a fly, and dashes himself howling and barking against the wall. The voice of his master dissipates these hallucinations; the dog obeys, but slowly, with hesitation, as if with regret.

2. He does not try to bite; he is gentle, even affectionate, and he eats and drinks; but gnaws the litter, the ends of

curtains, the padding of cushions, the coverlids of the beds, the carpets, etc.

3. By the movement of his paws about the sides of his open mouth, one might think he was trying to free his throat of a bone.

4. His voice undergoes such a change that it is impossible not to be struck by it.

5. The dog begins to fight with other dogs; this is a decidedly characteristic sign, if the dog be generally peaceful.

The three symptoms last mentioned indicate an advanced period of the disease, and that the dog may become dangerous at any moment, if immediate measures are not taken. It is best to chain him up at once, or, better still, to kill him.

[When a higher civilization prevails, we shall manage to dispense with dogs, and their places will be filled with something more useful and much less dangerous. But, while we suffer them to exist among us, let us see to it that they be kept in health; properly housed, fed, watered—muzzled during dog days—and in all respects cared for. At present, worthless curs kill sheep in this country valued at more than \$6,000,000 a year!]

DISEASE AND ITS TREATMENT.—No. 6.

BY ROBERT WALTER, M.D.

The A Posteriori Argument.—Causes Analyzed. In order to a better understanding of our subject, it will be necessary for us to examine more fully the causes of disease, its nature and its symptoms, and show their appropriate relations to each other. Medical books not often undertake this task; and hence, for want of proper definition, confuse the subjects and confound the readers. In fact, no satisfactory definitions can be given consonant with the old theory.

The causes of disease, as first stated by Hippocrates, the father of medicine, are naturally divided into three classes: 1st, the remote or predisposing; 2nd, the exciting or incidental; 3rd, the proximate or existing.

The remote or predisposing causes. These are such as we have already described, *viz.*, bad air, bad food, bad drink, bad clothing, want of cleanliness and of sunlight, deficient exercise or over-work, tobacco, alcohol, and other narcotics, stimulants and tonics. They describe, in a word, the voluntary habits of the people, and are operating daily and hourly on the great majority.

We call these causes predisposing, because they prepare the system for the exhibitions of disease; and remote, because they do not appear as immediately connected with it. They are, as it were, the last or ultimate analysis of all the causes, and are, therefore, fundamental. Once one is accustomed to them, they may remain operative on him for weeks, months, or years, and yet no immediate bad results appear to follow—as is often seen with tobacco-users, opium-eaters, tea and coffee drinkers, salt pork consumers, etc. Indeed, the principle of accommodation in the organism exists for the very purpose of enabling it to carry on its functions with apparent vigor, even in the face of unhealthful habits. But the results are nevertheless accumulating. The proximate or existing causes of disease are being fairly established. The

vitality is being wasted, the organs of excretion overtaxed, the blood is becoming foul and thickened, and so rendered incapable of circulating freely in the capillaries and minute blood-vessels, obstruction and congestion necessarily follow; in a word, damage is suffered, and a remedial effort must take place if the organism would be true to its own laws.

Nature allows to men great latitude, but she is none the less peremptory in exacting obedience to her laws. She has endowed them with great power of adaptability; so much so, that the false and wicked little proverb that “what’s one man’s meat is another man’s poison,” has crept into our language; but, notwithstanding all this, the day of reckoning will come—the storm-cloud will gather, and finally necessitate a paroxysm of disease, wherewith to clear out the system and restore equilibrium. These paroxysms are to the human body what storms are to the atmosphere. They are Nature’s method of purification. Such, indeed, with regard to fever, (which is an accompaniment of most diseases) was the doctrine of the great Hippocrates, who, having no books to mislead him, looked to Nature as the great teacher. Every fever, diarrhea, dysentery, every epidemic and endemic is a source of purification to the patient; a fact worth remembering, not because we would count them, but rather that we may avoid the remote causes and so render them unnecessary, or know how properly to aid them in their cleansing efforts.

2nd. The exciting or incidental causes. These, though usually harmless, except as a sequel to those above-mentioned, constitute the great bugbear of the people. Men appear to have no fear of the real causes of disease. While these are operating to prepare the system for, and necessitate diseased action, they fancy themselves secure; but the little dampness or cool air which sometimes excites into action the latent causes, and in-

duces the crisis, is dreaded as one dreads the evil one. Many people would rather inhale their own excretions from skin, lungs, and kidneys that are constantly floating in the atmosphere of their sleeping apartments, thereby returning to their blood these ingenerated poisons, than admit some pure air from without, for fear of "catching cold." They little dream that this very precaution renders them doubly liable to this particular ailment. A cold is simply an effort of the system to relieve itself of its accumulated waste particles, said accumulation resulting from over-feeding or inefficient breathing, or breathing of foul air, or sudden checking of the circulation in the skin, the great external cleansing organ. The man who keeps out-doors, and lives temperately, seldom, if ever, "catches cold." The ailment belongs especially to the men and women who shut themselves up and carefully exclude nature's great purifier, atmospheric air.

The truth is, these exciting causes of disease are, as it were, "the last feather that breaks the camel's back." Vitality has hitherto been moving along, accommodating itself as best it may to bad conditions, maintaining the even tenor of its way under difficulties, until some additional and perhaps slight demand is made upon it, thereby necessitating, in order to self-preservation, a re-arrangement of the vital forces. The Augean stable has become so foul that it must be cleansed, and great vital activity results in answer to the increased demands.

3rd. *The proximate or existing causes of disease.* These describe the actual conditions of the patient which necessitate the remedial effort: We call them existing, because they are actually in the system as the cause of the diseased action; and proximate because they are, as it were, the first analysis of the causes, and are immediately connected with the disease itself. They are the foul blood, the congestion of the blood-vessels, the offensive materials in the system. They are described by the needle, sliver or pin in your flesh, the gravel in the bladder or ureters, gall-stones in the liver, the foul

blood and small-pox corpuscles in small-pox; poisons, venoms, viruses. They are, indeed, anything in the organism that is unusable.

These proximate causes of disease are so intimately connected with the disease itself, that the two are frequently confounded and used indiscriminately; but they are really different, and may be clearly distinguished, partly from the fact that, though the disease can never exist without the causes (as we have already shown), the causes may exist, and often do, because of the principle of accommodation, without any manifestations of disease. There can be no hydrophobia where there is no virus; but the virus often exists in the system for weeks or months without hydrophobia, which could not be if the virus was the disease. A splinter in one's hand may remain for months without causing suffering, and yet afterward cause serious vital disturbance. The small-pox corpuscles may enter one man's blood and finally be cast out without causing any disease; while in another man they remain a few days to be followed by fearful vital disturbance; showing clearly the difference between the immediate causes of the disease and the disease itself. And so in all fevers; the causes may exist for a few days, or be accumulating for months, until finally the most powerful efforts that the system is capable of are put forth to remove them.

But if the *causes of disease* are not identical with the *disease*, it is equally true that the symptoms are not. These are simply the manifestations of the disease—the evidences of its existence. This is shown by the fact that the same disease has diversified and ever-changing symptoms. In fever there will be chills and great heat, quickened pulse, furred tongue, great restlessness, perhaps delirium, coma, stupor, and various other symptoms succeeding each other, and frequently changing or disappearing altogether, which could not be the case if they constituted the disease. There must be something behind to produce all these varied manifestations; and that

something is disease. This fact, I believe, all physicians acknowledge; and hence we will not further argue it here.

Now, if disease cannot be identified either with its causes or its symptoms, it must of necessity exist between the two, following the causes and preceding the symptoms. Between these two, then, what do we find? An entity? A real existence? A living thing with bad character and evil disposition? A something having form and shape that can be weighed, measured, or observed? Not at all! No such thing has ever been found or ever can be. There is nothing to bridge the chasm but the vital properties of the living organism. The living force acting in self-defence is the only connecting link between the causes of disease and its symptoms.

Disease, therefore, in its essential nature, is *vis medicatrix naturæ*—the powers of nature acting self-preservatively. The existence of this *vis medicatrix na-*

turæ has long been recognized by the most eminent medical men; but they have failed hitherto to perceive its identity with the disease. Their mistake has been in attempting to crowd into the slight chasm between the causes of disease and its symptoms two powerful opposing agencies—the disease on the one hand, and the *vis medicatrix naturæ* on the other, acknowledging all the while that both these forces were too indefinite and mysterious to be understood. Which is very true. They cannot be understood, except by viewing them as one and the same thing. This done, all becomes clear; but refusing to do this, confusion and doubt reign supreme, and medical empiricism becomes just as common as “regulars,” “specials,” and quacks are numerous; each class admitting its own want of knowledge of *fundamental principles*, while nevertheless advocating with the greatest assurance the propriety of its own *practice*, and condemning that of all the others.

THE MARVELS OF THE ANGEL MARVAUD.

BY JOEL SKINNER, M.D.

“DR. ANGEL MARVAUD, a French physician, has been experimenting on the physiological effects of coffee, tea, cocoa, maté (Paraguay tea), and alcohol, which he classes together as aliments of economy, or anti-waste foods, says that alcohol acts directly on the sensory apparatus of the spinal cord, and indirectly on the molar apparatus, which it excites in the same manner as strychnine, coffee, tea, and maté act principally on the brain. Alcohol and cocoa excite the exercise of the muscles; coffee, tea, and maté the exercise of thought. Further, by lessening the waste of the tissues, counteracting organic oxidation, and diminishing loss by means of the secretions, they all act as aliments of economy. In this way is explained their action in stimulating to work in the evening, in partly supplying the want of solid food, and in moderating vital combustion. Hence arises their increasing consumption, and their

more general use as articles of daily régime; hence, too, their utility in alimentation, and their important place in hygiene. The abuse of these aliments has two principal inconveniences. In the first place, the excitement of the nervous system which they cause is liable to be followed by fatigue, weakness, and even inertia. In the second place, by their interference with and reduction of the processes of combustion, transmutation, and decomposition, they may cause arrest of the nutritive changes in the cellular elements, and may produce as results torpor, atony, fatty degeneration, and necrobiosis of tissues.”

The above paragraph we find going the rounds of the press under the head of “Scientific Notes.” We introduce it to our readers for the double purpose of calling attention to the wonders of scientific knowledge, as this is understood and expounded by medical men, and of

showing the absurdity of conclusion to which a man may arrive, if he commences to reason from false premises. If this doctor had first undertaken the trifling business of telling us what food is, he never would have descended to such absurdity as he has. He is thoroughly ignorant of the very first principles of physiology, or he never could have so blundered. But he is not alone in such ignorance. The paragraph is a beautiful specimen of medical reasoning. It is just such as we are treated to every day, and exhibits the same contempt for the simplest principles of logic and of language that is so conspicuous in medical writings. It is the same logic that has deluded thousands into the use for food of prepared phosphoric acid, a poison; the same by which Bellows makes his fish into brains and molasses into vital heat; precisely the same by which Hall has proved the propriety of tight-lacing, and that millions are duped into the purchase and use of "Stomach Bitters," "Plantation Bitters," and all the other host of quack compounds, or the worse prescriptions of the "regulars."

Medical reasoning is an anomaly. There is nothing like it in heaven above, or in the earth beneath, or in the waters under the earth. The show of words without rational meaning, and the greater show of technicalities thrown in as a cover to our ignorance, are perfectly marvellous, but exceedingly useful. They overawes the ordinary reader, and cause him to retire in reverent silence. He despairs of ever comprehending the depths of profundity shown, and thus leaves the field to the professional, and is satisfied to trust his case to those who ought to know. There is nothing like a little Latin in which to write our prescriptions; nothing like the smatterings of an unknown tongue, when coupled with supposed superiority, by which to silence annoying questions without answering them; and nothing so useful as high-sounding and comprehensive words to stimulate in our readers or hearers respect for our learning, and consequent indisposition to question our authority.

If the reader thinks us hard on the medical profession, let him try for himself. Let him hunt though any medical library in the land, and then give us any idea, if he can, of the fundamental principles of medical science and practice. What is disease? How do medicines operate on the living organism? What is food? What is poison? What is nutrition? He will find "mystery, mystery, all is mystery." He will find no principles at the bottom of the system, except such as are at variance with all the known principles of life, and that are consequently false. Hence the necessity of profound study, and of speciality of language. On most subjects we desire to communicate ideas, and hence use plain and understandable language; but, if we have no ideas to communicate, or our ideas are false, and consequently it is not desirable for them to be understood, we use language that will enable us to conceal the weak points, and prevent close scrutiny.

This is just what this paragraph does. It conceals the truth under absurd verbiage, and will, no doubt, mislead thousands.

There is one point, however, in the doctor's argument that we like. He classes tea, coffee, cocoa, maté, and alcohol altogether. This seems natural. It is so appropriate to judge of things in their relations to life by their *effects*, rather than by their names, that we wonder that the principle has been so long overlooked. Alcohol is not injurious because it is alcohol, but because of its effects on the system as a "stimulant" and "antiseptic"; and Dr. Marvaud knows that any other substance that causes similar effects, is beneficial or injurious in exact ratio, no matter what the name. He knows that tea is not good because it is tea, nor alcohol bad because it is alcohol, as our temperance friends think, but that both must be measured by the same standard, and condemned or accepted under the same rule.

Dr. Marvaud, we are told, "has been experimenting on the physiological effects of coffee, tea, cocoa, maté, and

alcohol." We have seen many doctors experiment upon themselves with these same substances, especially alcohol, and much of their testimony regarding the results has been quite as enthusiastic as Dr. Marvaud's; but we must confess that we never saw anybody experiment on the *physiological effects* of these substances. We judge, however, that the doctor must have been experimenting to determine the *pathological effects* of these things on himself. We judge that the experiments must have been upon himself, because of the modest but decided recommendation that he gives them. Men are not apt to be so enthusiastic without good cause. But, be this as it may, it is quite refreshing to know that "cocoa acts directly on the sensory apparatus in the same manner as does strychnine," but whether strychnine is food or not, he does not say. This, however, is a small matter, as long as we know that "alcohol and cocoa excite the exercise of the muscles," and coffee, tea, and maté the exercise of thought. Well, we always knew that alcohol would make a man hic and spew, lie down in the gutter, or hug a lamp-post, which is exercise of the muscles, no doubt; but we really didn't know that tea and coffee would "excite the exercise of thought." We can conceive how it might excite to action the brain; but how it can excite that which did not exist until after the excitement, we must leave for the Angel Marvaud to unravel. We would simply remark that *organs* may be excited to action, but that functions are the results of action.

Perhaps we are too hard on the doctor. It is possible that the wonderfully felicitous expressions used are those of the reporter. This, however, seems doubtful; for it is not usual for any one to attain to such marvellous consistency of absurdity who has not been thoroughly educated into the mysteries of medical reasoning. No imagination, except such as has been trained to the study of medical theories, could ever have conceived the idea that these substances "act as aliments of economy." If the reader will

peruse a series of articles, entitled "Disease and its Treatment," now being published in this journal, he will discover, I doubt not, that neither "aliments of economy," nor any other substance, "act" on the living organism (except mechanically). On the contrary, he will clearly perceive that the living organs, hands, teeth, stomach, veins, heart, lungs, liver, etc., always act upon the aliments whenever they are brought in contact. We can clearly perceive how a person may be a man, and yet act as a donkey, because men are living beings, and action is the great characteristic of life; but how that which is not food can *act as food*, we cannot comprehend.

The doctor explains the puzzle, however. He says they act "by lessening the waste of the tissues, counteracting organic oxidation, and diminishing loss by means of the secretions." Now, *waste* of tissues in a healthy person is an absolute impossibility, but a certain degree of destruction of tissue is a physiological necessity; and, among sick people, one of the chief difficulties is that this destruction does not go on with sufficient rapidity. The old, worn-out tissue is retained, so that new and more highly vitalized cannot replace it. Hence, the appetite fails (an anti-waste condition), nutrition is partially suspended, the patient becomes weak and nervous, and often dies the victim of "anti-waste food." This is disease, and this delectable specimen of medical erudition would have us increase this condition by the use of these substances which fill such "an important place in hygiene." We have too much of such hygiene, and, as a consequence, doctors *quantum sufficit*.

Again, we are told that these things feed us by "counteracting organic oxidation." What is organic oxidation, that we should counteract it? It is simply vital action; and, of course, to counteract it is to counteract and destroy life.

As economy seems to be the doctor's aim, let me suggest the most economical of all arrangements for this purpose, and that is, to *stop breathing*. This has proved itself wonderfully efficacious, to

the extent that it has been tried, as may be seen by observing the habits of the majority of our young ladies. They breathe but little, and, of course, eat correspondingly. They lace too tightly for the one, and so have no appetite for the other, all of which results from "counteracting organic oxidation." We can assure our readers that if they take no oxygen into the lungs, they will never be troubled with organic oxidation. Tea, coffee, and alcohol will do the same thing, but they are not nearly so economical as it is to stop breathing.

"Diminishing loss by means of the secretions." This is a puzzle. We don't know what it means. We suspect that it is a show of words to cover the want of ideas; otherwise, the doctor must mean excretions, for these do create loss, as far as bulk is concerned. The bowels carry off large quantities, the skin still more; then follows kidneys, liver, etc. If the doctor would prevent loss by these, he had better paint the skin, stop up the bowels, destroy the bladder, "calomel-ize" the liver; then he will have no more loss, but a great gain, in the change of one human being into ten thousand worms.

"Thus they supply the want of solid food!" Certainly. In the same way that the miser supplies the wants of his starving child—in the same manner that the drunkard supplies the wants of his ragged children and starving wife—they supply the food by *preventing* its use.

But, as every picture has its dark side, so this is not an exception. "The abuse of these aliments has two principal inconveniences." That is what was the matter with Zeke's "flying machine." He could fly, downward at least, with great precision; but it was very inconvenient "lighting."

First, "the excitement of the nervous system which they cause is liable to be followed by fatigue, weakness, and inertia." Are these the effects of food? Does healthy food weaken and fatigue a man? Not at all. The weakness is the result of over-taxation of the vital powers in their efforts to expel these insidious poisons.

"In the second place, by their interference with and reduction of the processes of combination, transmutation, and decomposition, they *may* cause arrest of the nutritive changes in the cellular elements." This is palpable outrageous dishonesty. It is a tax on human credulity, and a libel on human nature. It is a bid to the thoughtless to persevere in habits that are ruinous, by covering up the real truth in words not readily understood by the non-professional reader. In fact, the whole paragraph is arranged as a plausible pretext, under which one may shelter himself and enjoy his "toddy" without molestation of conscience. The processes of combination, transmutation, and decomposition constitute the nutritive changes; and hence, to the extent that tea, coffee, and alcohol reduce these processes, to that extent does it arrest the nutritive changes. They *do* do it, not they *may* do it, as Dr. Marvaud well knows, if he knows anything about it.

The *abuse* of these substances is in their *use*. Total abstinence is not only valuable as an expedient, but it is true as a principle; and the principle applies to all substances of a like nature. Poison is poison, and food is food, and they are as distinct from each other as life and death. They cannot be used interchangeably without evil results. A doctor's prescription has no power to change one into the other; but they remain the same under all conditions and circumstances. When doctors and temperance men learn that alcohol and its confrères are intrinsically bad, not relatively so, human progress will have made a great advance.

STUDY AND BEAUTY.—No girl should be indifferent to her personal appearance. God meant woman to be attractive, and it is one of her duties to carry out this design. But that dress is to do all is more than we can believe. Just because we love to see girls look well, as well as to live to some purpose, we would urge on them such a course of reading and study as will confer qualities which no modiste can supply.

A well-known author once wrote a pretty essay on the power of education to enhance beauty; that it absolutely chiseled the features; that he had seen many a clumsy nose and thick lips so modified by thought awakened and active sentiment, as to be unrecognizable.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming
Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

SEASONABLE DISHES.

BY JULIA COLMAN.

Corn.—Sweet Corn.—A Green Corn Cutter.—Succotash.—Green Corn Custard.—Green Corn Gems—Muffins and Mush.—Maizo-Avena.—Green Corn Cream and Milk and White Sauce.—String Beans.—Creamed Potatoes.—Green Corn Soup.—A Green Corn Festival.—Drying Green Corn.

"Corn," in Anglo-Saxon usage, is a general term, and not the specific name of any one kind of grain. Corn in England means simply "grain," though frequently applied more specifically to wheat, which is the most common kind of grain in that country. In Scotland, oats are called corn. In Germany, "Korn" means rye; and they have a "green corn," which is rye gathered and dried green. This makes a very palatable dish, more delicate and more easily digested than our own green corn. They use it mostly for soups. It can be had at the large German groceries in New York City.

The "corn" of America is maize; and a noble grain it is. No other can compare with it in beauty of foliage, in size of kernel and ear, nor, we believe, in variety, from Hard Flint to Dent, from Southern White to the rich yellow grains of the Northern varieties. All of these can be used green; but to crown the lavish variety, we have a kind specially adapted to green use: the tender and delicious sweet corn. It pays to cultivate this always where corn is to be used green; and, in marketing, it pays to learn the somewhat difficult task of distinguishing between this and the field of varieties which are not unfrequently palmed off in its place upon undiscerning customers. The true sweet corn has a peculiar pearly whiteness, and yields a rich milk freely when the kernels are broken and pressed. This green use of the grain is almost entirely unknown to foreigners, who judge our corn largely by

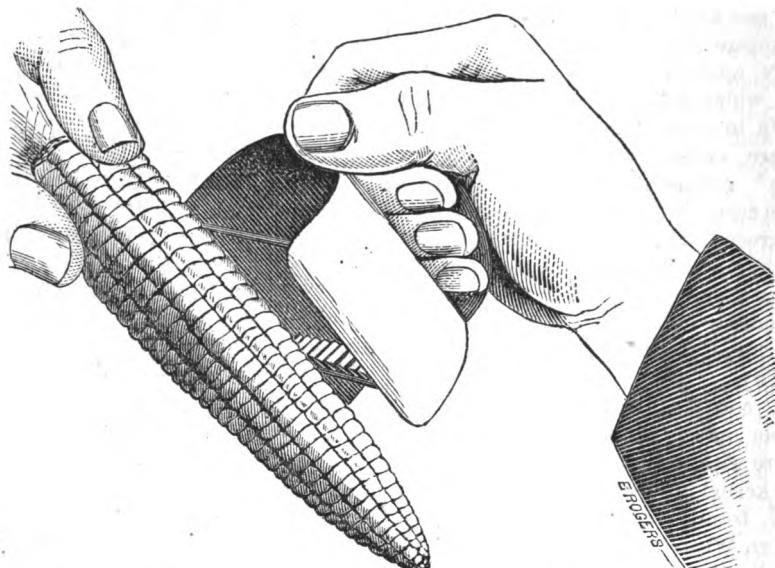
the sea-tainted meal which was first sent to them in time of scarcity, and which they have never learned to cook properly. One first-class English authority, in speaking of it, says that when boiled green it is called "cob," and is much used in America. That reminds one of the old story of the foreigner who called it "green peas on a stick;" and who, when he had devoured them, sent out the cob to have it replenished. As in this case, the liking for it usually obtains from the first. Our Pilgrim Fathers found that out to their sorrow; for when they had, soon after their first arrival here, raised a few acres of it with infinite trouble, they complain that a company of colonists whom they hospitably entertained for a while, did recklessly devour and waste their precious green corn, upon which they depended for a supply of bread for the Winter.

The wholesomeness of green corn is often called in question, partly because people eat of it carelessly, if not enormously, and especially because they chew it insufficiently—which practice is facilitated by greasing it with butter. Moreover, they do not consider that one ordinary ear of corn nearly ripe, contains a large amount of nutrition, and they often so overload the stomach, that the only resource is to run off the unmanageable mass in the quickest way possible. And then the corn is blamed—it does not agree with the man. Bad corn. But I happen to know, from much observation, that when eaten in reasonable quantities at meal-times only, without butter and with other food—but especially when properly masticated, it can be taken freely at least twice a day, without injury to people of ordinary habits.

Green corn soon deteriorates after it is gathered. If possible, it should be eaten on the same day in which it is picked.

By the second day it inevitably loses much of its flavor. If any is to be kept over twenty-four hours, it is better to shave it off and cook it; that is, if there be ice to keep it on, for when cooked it sours readily. When a child, I used to hear of a man who was in the habit of eating up what succotash there was in the house to save it from souring, on the approach of a thunder-storm. Green corn is also frequently picked quite too young for profit or pleasure. It leaves a little watery sweetness in the mouth without richness or flavor. It should at least have attained its full size of kernel.

Boiling on the cob is the simplest way of cooking it; and, all things considered, it is the best. Use but little water, and cover the boiler closely. Cook from ten to fifteen minutes for young and tender corn, while twenty minutes ought to cook sufficiently any sweet corn that is fit to be eaten green. Cooking in a steamer requires a little more time. Serve in a covered dish, or cover close with a towel. This can be eaten directly from the cob without any results very disastrous to the dignity of ordinary people, provided the corn is not smeared with butter, and we have no difficulty in getting it down



Roasting it on the cob is the primitive method of cooking it; and this makes a very fine dish, provided it is well done and not burned. The scorched portions are indigestible. It can be roasted by placing it properly husked and silked on a gridiron over a bed of coals, and turning very frequently. Another method is to open the husks, silk the ear, replace the husks closely, and then bury the ears thus protected in hot wood ashes. In either case, do not overdo it.

Green corn is often injured by too much cooking. After it is thoroughly scalded, further cooking only renders it harder and more indigestible.

without the aid of that greasy condiment. Indeed, we have taken the fancy that it is nicer and more delicate without it. It can be shaved off on the plate, but with the singular result that it seems to stand much more in need of condiments. The same result occurs if it is shaved off before cooking. It makes a dish more easily managed by those who sport false teeth and false dignity, but it seems to require a little salt and a little butter or cream; and some add even that abominable acridity—black pepper. However, if half the corn be grated and scraped, the other half being shaved, and the whole cooked in very little water, it will

pass with less seasoning; and people of simple tastes have been known to relish it with no seasoning at all. The shaved corn should be boiled first for five minutes, in barely water enough to cover it, then the grated corn added, and the whole boiled five minutes longer.

Succotash. For this dish the beans should be cooked first—until nearly done—then an equal quantity or more of green corn be added and cooked fifteen or twenty minutes longer. This is also improved by having some of the corn grated. It gives a richer juice which should fill the grains even full.

A Green Corn Cutter. This grating, as it is called, may be done in several ways, of which real grating is among the most troublesome. If the grater is used, it is best only to score the surface of the ear with it, and then to press out the kernels with a blunt knife, pressing closely and carefully enough to get out even the chits, leaving much of the hull on the cob. An ingenious little instrument has been devised for this use called the "Yankee Corn Cutter," represented at work in the engraving opposite. It scores the kernels down and presses out their contents at the same time. A similar result may be secured by the use of a knife, but this little device saves time; and the latter item is of no small account since "grated green corn," as we still call it, is available for a great variety of dishes. One of its best uses is in green corn puddings, or rather custards, for they very much resemble the latter; and, indeed, the juice of grated green corn can be used instead of milk in many ways.

Green Corn Custards. For a peach custard, peel and shred fine one cup full of the richest and sweetest peaches, perfectly ripe; to these add one cup of grated green corn in its prime, and one cup of water. Sweeten to the taste. If the corn and the peaches are both the best of their kind, they will make a very fine dish without sugar, though most tastes would require perhaps two spoonfuls. Mix thoroughly, and place in a nappy. No fruit puddings should be baked in

tin. For ornament, cut the red cheeks of the peaches carefully peeled, and lay them in fanciful shapes on the surface of the pudding. Then bake from twenty to thirty minutes according to the heat, but do not brown the surface. Serve cold. Sweetened cream may be served with it, but it is good enough without any sauce. When the green corn is young, it may need the addition of one spoonful of corn starch to thicken the custard sufficiently. When it is in its prime, the proportions first given will be correct; but as it becomes older, a little less of the corn will be required.

Several kinds of fruit make delicious custards in a similar manner; tomatoes especially, the more solid sorts; apples, grated, the richest that can be found at this season; sweet plums peeled, pitted, and sliced fine; sweet grapes, and the pulps of the dark-skinned grapes; using in each case about the same proportions. The more juicy tomatoes may be used in proportions of one part corn to two parts tomatoes and no water. Very soon fruits are not acceptable. Very dark fruits, like huckleberries, blackberries, and black raspberries, do not sufficiently harmonize in color with the green corn to make a presentable dish.

Green Corn Gems, Muffins, and Mush. Green corn makes with the various grains many excellent dishes. One part grated green corn, with two or three parts water, and then thickened with wheat-meal a little stiffer than when made without the green corn, produces tender and delicious gems. The pulp and chits left when the milk is pressed out, also works finely into the batter biscuit.

Very nice muffins can be made with one part grated corn, one part water, and two parts oat-meal or wheat-meal; or it may be baked in a covered spider, like the oat-meal breakfast cake. Griddle cakes, biscuit, and other dishes, can be readily contrived by the ingenious cook; the details of actual dishes made thus are too long for our present limits.

Green Corn Cream and Milk. Add one part water to grated green corn in its prime, strain through a sieve or a cloth,

and you have a fluid of the color and consistency of sweet cream, and which can be used as such in several ways. Two parts water to one part green corn yields a milk which is also variously useful. It will not produce dishes exactly like those made with cow's milk, because it is not cow's milk, but it can often be very satisfactorily used in its place by those who cannot or do not wish to use cow's milk. The cream, sweetened, makes a fine dressing for cut peaches and other fruit, with the decided advantage of not curdling or turning soon on standing. Indeed, it improves decidedly by standing half an hour or so.

Green Corn White Sauce. Place the milk in a saucepan, and when nearly boiling, stir carefully until it actually boils; then add the wheat-meal, thickening to taste, and boil five minutes. It makes an excellent dressing for potatoes, cauliflower, and other vegetables, where white sauce is commonly used.

String Beans. String, wash, and cut into half-inch pieces tender bean pods; boil gently in very little water, and when quite tender, fill them even full with green corn cream, and remove from the fire immediately without boiling the cream. Salt, if desired, and serve warm.

Creamed Potatoes. Ripe potatoes that are to be mashed are very much improved by the addition of green corn cream; and if care is taken to beat them finely and evenly, it makes an agreeable dish, better, to my fancy, than when milk is added in the usual fashion. The shaved or grated green corn mixed with mashed potatoes and thickened with wheat-meal, makes good scones. Bake in a covered spider. Cold green corn may be used in this way. If boiled on the cob, shave it off finely and moisten with a little of the cream, and mix with the potato.

Green Corn Soup. Use about half-a-pint of grated green corn to one quart of soup. The latter may be either a meat or a vegetable soup. Green corn is one of the few things which, like split peas, makes an excellent soup mostly by itself. A good vegetable soup can be made of one-half pint each of onions, cabbage,

potatoes, tomatoes, and one gill of celery, cooked one-and-a-half hours, and one pint of grated green corn cooked twenty minutes. This makes two quarts of soup. If parsley be used instead of the celery, put that in with the corn. Green corn also makes an excellent addition to chicken soup. As a thickening for stewed tomatoes, and as a stuffing for baked tomatoes, we shall refer to it again as occasion demands.

A Green Corn Festival. Indeed, so numerous and varied are the uses to which this excellent material can be put, that it would be an easy matter to get up an elegant dinner with green corn in every dish, from soup to fruit dish, to which it is sometimes added as an ornament. This might not be advisable if it were desired to bring out its taste in the various dishes, for that would require other dishes for a contrast; but for the purpose of showing the resources of hygienic cookery, such a green corn dinner would be a much more praiseworthy undertaking than some of the banquets we hear of. For such an occasion, the foliage of the plant would be found to make a stately ornament to the dining-room, and picture-frames made wholly or in part with the glossy kernels instead of pine cones might appropriately adorn the walls. With these hints, we leave the details to the ingenuity of the enthusiastic hygienist.

Drying Green Corn. Dried sweet corn is very much appreciated in the market, as may be readily seen in the fact that it commands from eighteen to twenty cents at retail; while, curiously enough, we can import dried green rye from Germany, and sell it at twelve cents per pound. Corn for drying should be picked early in the morning, husked and boiled at once, shaved thin with a sharp knife, and dried as rapidly as possible, either in the oven, in a drying rack or chamber, or, better still, under a hot-bed sash. If properly managed, it can often be thoroughly dried in a single fair day, and this is very desirable. No fruit sours so rapidly or deteriorates so much by dust and exposure as green corn. The

grated green corn can also be dried, but it requires even greater care, as it is best not to scald it before drying. When subsequently soaked out, in milk-warm water, it can be used for most purposes almost as well as when freshly grated, and those who appreciate its use in cookery, will lay in a good supply. It may seem a little troublesome at first, but, really, it will cost far less than to keep a cow and take care of the milk, and to many it will be far more wholesome.

AERATED BREAD.

THIS is probably as near perfection as any light bread now made on a large scale. There is but one bakery of this bread in New York City, and that does not look much like a bakery. It is a large, plain painted brick building in Twentieth Street, and it is remarkable for being "as neat as a Quaker."

Waving the preliminaries, we find ourselves standing in the great central room listening to the explanations of the polite guide, and looking at two large iron spheres suspended before us by framework and cog-wheels. These are the "kneaders," each capable of mixing two barrels of flour at once. From twenty-six to twenty-eight gallons of pure water are let in, and four pounds of salt added to each kneader, and then the two barrels of flour are poured in through sifters from the floor above. The cog-wheels begin to turn, carrying around with them knives cutting between other knives inside of the kneaders, though all out of sight; and the two barrels of flour are kneaded in ten or twelve minutes. Then a powerful air-pump away in one corner sucks out the air for a minute, and other pipes bring the carbonic acid gas to aerate the dough. This comes from the little laboratory in the corner, and is manufactured as for soda-water by pouring sulphuric acid on marble dust. The gas is then put through three waters to cleanse it, and all in the darkness of that immense kneader it rushes in, the cog-wheels turn again, and in ten minutes more the dough is thoroughly incorporated with the gas. It is ready now to

come out, and a pan stands upon the balance below ready to receive it. A stop-cock opens, and the pan is filled with dough having that creamy billowy look characteristic of this bread. It is said that in the course of improvements they once made the bread smooth, and the people refused to receive it because they did not recognize the sign of the aerated bread.

The pans of bread are shoved quickly upon long narrow spatulas, or wooden shovels, upon which they are carried to the oven, and such an oven! It resembles more than anything else the inside of the paddle-box of an ocean steamer—a great wheel with self-balancing shelves turning slowly over in the great brick dome. As you look in, shelf after shelf, (sixteen in all) comes down and gets its twenty fine loaves, and then sinks away with them into the fragrant heat. After forty minutes it opens, and the bread is taken out with the spatulas, and boys with clean gloved hands take it out of the pans and place it upon a long, wide, white-ash rack to cool. One great beauty is that no perspiring human hand touches it during the whole process. It is the cleanest of all kneaded bread.

It is sweet too. There is not only no fermentation about it, but there is time for none. The whole process, from the flour-barrel to the white-ash rack, requires only seventy or seventy-five minutes. Any one who has duly considered the uncleanness and the destructiveness of the process of fermentation, will appreciate that highly. As we might expect, one of the results is that the bread keeps admirably. In cold weather, in a passably dry and cool place, it will keep for weeks and months, and sometimes all Winter. In the Summer it keeps ten or twelve days without difficulty, and it never grows hard and stale like fermented bread. On the other hand, like fermented bread, it should not be eaten quite new. At least twenty-four hours should be allowed for the carbonic acid gas to escape, and then the bread is just as sweet and tender and moist, as when first baked, and it will remain so for

days. Of course, such qualities recommend it highly for ship-stores. A steamer to Europe could provide beforehand for its entire voyage.

We regret that this bread is not made of Graham-flour. It seems to me that Mr. Fuller loses his best customers, those who could best appreciate the excellent qualities of his bread, by this neglect. We learn that he did try it many years ago, and could not find sufficient customers; but Graham-bread eaters have largely increased in number since then. We know this by that excellent test: the greater ease with which we can obtain wheat-meal in the stores, and wheat-meal bread in the bakeries. But the latter dry chippy stuff is poor, indeed, compared with what it would be if made by the process of aeration. It is a pity, indeed, with a process so nearly perfect, not to use the perfect material. J. C.

HOW TO COOL WATER.—As the warm season of the year approaches, a cool draught of water becomes a luxury which we may enjoy with a little care. By the following method, simple and inexpensive, water may be kept almost as cold as ice. Let a jar, pitcher or vessel used for water, be surrounded with one or more folds of coarse cotton, to be constantly wet; the evaporation of the water will carry off the heat from the inside, and reduce it to a low temperature. In India and other tropical countries, where ice cannot be procured, this expedient is common. Let every mechanic and laborer have at the place of his work, two pitchers thus provided, and with lids or covers, one to furnish water for the evaporation, and he can always have, a supply of cool water in warm weather. Any person may test this by dipping a finger in water and holding it in the air on a warm day; after doing this two or three times he will find his finger uncomfortably cool. This plan will save the bill for ice, besides being more healthful. The free use of ice water often produces derangement of the internal organs; which, we conceive, is due to the property of the water, independent of its coldness.

BIRDS vs. GRASSHOPPERS.—Small birds which somewhat resemble sparrows, have appeared in great numbers in Texas, and are devouring the hitherto prosperous grasshoppers.

We believe English and German Sparrows would in time clear the country of those pests, the Locusts, which devour every green thing where they have the field all to themselves. Birds will devour their eggs, and thus clear out the Locusts. Boys, spare the Birds!

OAT MEAL DRINK.—An excellent and healthful drink for warm weather, may be made by putting two or three spoonfuls of oat meal into a tumbler of water. This should be used to the entire exclusion of the common mixture of vinegar and molasses, with water, which farmers use in the harvest field. It is said to be popular in the BROOKLYN NAVY YARD, where two and a-half pounds of oat meal is put into a pail of cool water, but not ice water. This drink will quench thirst, and is also strengthening, from the nutriment contained in the meal.

TAKE CARE OF YOUR RASPBERRIES.—When the young canes reach the height of four feet, which they will about the time the fruit ripens on the old canes, pinch off an inch of the tender cane. This will prevent it from growing higher, therefore it will grow large and low, and strong to stand against the wind. It will also send out, reaching to the ground, laterals, the tips of which you can bury in early fall to take root.

The above does not apply to the Philadelphia, which propagates from the root, the same as the blackberry. These should be cut back in early fall, that the branches may harden to stand the cold of winter.

DRIED FRUITS.—The fruit-canning business has not run out the trade in dried fruits by any means. The latter are cheaper proportionally, because the cost of their transportation is so much less, while the very abundant use of canned fruits has taught people the value of fruits of some sort the year around, and made them indispensable, so that there are more dried fruits used now than ever. But they would be in much greater demand if they were more carefully prepared, if better fruits were selected for drying, but especially if they were put in neater packages for the market; and if they were less exposed to sunshine, air and dust in many ways, but mostly in selling them. Paper packages of one pound each would please the customers, tin fruit cans would be better still, though not needing to be sealed air-tight. Another good plan would be to have ten or twenty pound tin cans for grocers. These tin cans would preserve the flavor finely. So would boxes lined with tin foil. Such devices as these, would greatly improve the quality and increase the demand for our domestic dried fruits of all kinds, and make the manufacture one of much greater importance to the advantage of fruit countries remote from market.

TO REMOVE STAINS.—S. C. T. says: When Table Linen, etc., has become stained with fruit, tea, coffee, etc., all traces of the stains may be removed by pouring clear boiling water on the parts, and allowing it to stand a few moments, then rub the spots thoroughly in warm water without soap, before putting in the wash.

Pacific Department.

C. F. YOUNG, M.D., Corresponding Editor.

TAKING COLD.

"Why do we take cold so easily?"

The immediate cause of your cold is suddenly checked perspiration; the body being chilled by wet feet or damp garments, or a draught of cold air. The predisposing causes were gross food, bad digestion, want of personal cleanliness, constipation, and breathing foul air.

If these predisposing causes had been avoided, temporary exposure to wet and cold might have been endured with impunity. But, if the pre-disposing causes have been active, then the slightest exposure invites head-ache, ringing ears, watery eyes, sore throats, and cough.

The reason is obvious; the foul habits have loaded the blood with impurities, the emunctories or cleansing organs have been crowded to their utmost capacity.

The slightest check of perspiration by exposure, or by neglect of the bath, or lack of clean garments, or clean air in sleeping rooms, the blood being so overloaded with impurities, induces the fever which you call a cold.

When the habits of life are temperate and pure, and the blood is healthy, people can endure cold and wet a long time, before they 'take cold.'

On the plains in '65,' a company of one hundred men women and children slept on the ground, without tents, exposed to hail, rain, wind, and snow. They endured mid-day heat, and the cold nights of the mountains. They forded ice-cold streams, and walked all day with wet garments, were exposed to all the usually exciting causes of colds intensified and long continued—yet from Fort Leavenworth to Salt Lake—no one had a cold.

The lesson of practical value is—give attention not so much to the exciting as to the predisposing causes of colds.—Instead of extra wraps, dress the whole body evenly, and not too warmly; bathe daily, use plain food, never clog the stomach between meals, sun and air each day every garment and the bed clothes worn or used at night.

Omit all hot drinks, live much in the open air, drop the windows from the top,

and open them at the bottom; do not let the curtain cover these openings. Fresh air is a friend; sunshine is a friend; cultivate their acquaintance, use good sense, and you are safe from colds, catarrhs and influenzas.

MENORRHAGIA...

THE office of the physician should be to instruct his or her patients how to live healthful, natural lives, that sickness may be avoided. Also, how to return to the conditions of life that will, by easy grades, and flowery paths, lead the patient away from sickness and suffering, to the clear sky and breezy mountain heights of robust health and good spirits. Our patient is not helpless; her friends say of her—"she is delicate." Carefully questioning, and looking over the past and present life, we are sure the difficulty (profuse menstruation) is the result of debility.

Placed in boarding school during the most critical years of girlhood, where almost every motion was dictated, she suffered from lack of free, happy, outdoor exercise. Her food was not suited to a growing girl, in quantity or quality; it was watery and thin, or concentrated and oily. She grew flaccid in muscle; kept in the shade, she was white and masy in color. Her nervous force was lavishly and persistently expended, through the brain, at the expense of the nervous force necessary to carry on the work of exertion and purification by the bowels; hence constipation ensued.

Vigorous exercise, or rollicking play was unknown at the school, and her subsequent life has not been of a nature calculated to invite free perspiration; hence, the retention in the blood of salts and waste matter, that should, each day, be liberated or floated out through the pores of the skin. Faces retained, pores obstructed, the fountains of life have been poisoned.

PROOF.—The secretions which moisten the mouth come directly from the blood. When the blood is clean, the mouth and breath will be clean. One office of the

liver is to separate waste materials from the blood. This should, each day, be passed off with the *faeces*. Where the habit is constipated, this retained billious matter is re-absorbed. In one person it appears in a pimply face; in others as a sore throat. In this case, the lining membranes and mouths of blood vessels have lost their truthfulness; they are tender and weak.

DRESS.—Many coverings over the trunk of the body, but one or two over the extremities. The extremities farthest removed from the blood-making organs, should have most covering; but they have not had this attention. They have been chilled; and, being ligatured at the ankles and below the knee, the capillary circulation has been obstructed, and the blood crowded into the already overheated trunk; hence the pre-disposition to

HEMORRHAGE.—Corsets, containing ribs of steel, have been worn until the young lady is sure she 'could not hold herself up,' she would 'all fall to pieces' without them! Admit that she does not lace them; such things have been heard of, but the person who wears tight-laced corsets can be found; oh, no! Admit it, but every time she bends, their stiff steel ribs receive the weight of the upper half of the body, and press down, and in upon the abdominal muscles with a force proportioned to the weight brought to bear upon the steel ribs. If the corset is worn sufficiently close to be a 'support, a rest, something to lean on,' then, considerable downward pressure must come from every attempt to bend the body; even to pick up a pin. Then add to this, the weight of the intestines with their contents pressed against the delicately adjusted uterus. Reader mine, do you not perceive why

CONGESTION and inflammations exist? Why hemorrhage and ulceration, cancers and tumors, are sure to follow?

Our countrywomen in all classes of society eat and drink, and dress in a manner calculated to kill. They are deliberately committing

SUICIDE.—The little daughters are taught everything, excepting those things actually necessary to secure a beautiful life, full of joy.

In this particular case, the natural channels for daily purification of the body were obstructed. But great care was taken to stimulate the failing and capricious appetite! Half the care taken to remove obstructions, would have established the equilibrium of vital forces. Without this care, the only way of escape was by

VICARIOUS ACTION, *i. e.*, one delicate organ took on the work of the skin, bowels, and kidneys; hence the difficulty named at the beginning of this article. We could not advise medicines, because the vitality of the patient was already taxed to the utmost to preserve life.

She needed re-adjusting in her motives and conscience, and relations to food and drink.

PRESCRIPTION.—1st. Labor or exercise in the sunshine every day, that shall invite free perspiration, from head to foot, followed by a sponge bath in a warm room.

2d. Following the bath and change of raiment, one hour of quiet rest in bed; sleeping if possible.

3d. A vigorous rubbing with a dry towel, from head to foot every morning.

4th. Never wear any garment at night, worn in the day.

5th. Gowns and sheets, and blankets, slept in at night, must be sunned and aired every day.

6th. On an empty stomach, morning, noon and night, and in the night, if wakeful, drink a glass of pure water.

7th. No fluids of any kind at meal time.

8th. No grain of food or fruit between meals.

9th. No food, only when sharply hungry.

10th. Thorough ventilation of all sleeping and living rooms.

SPECIAL TREATMENT.—On the sick days, omit No. 1 in the preceding.

2d. Dip the hands and feet alternately in very hot and cold water, until the veins stand out full, and the skin is red.

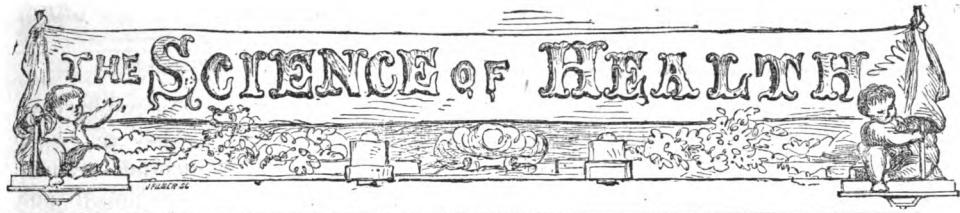
3d. Keep very quiet; lie where the sunshine can kiss your pale face, hands, and feet. Have an attendant vigorously rub the entire body warm and rosy, night and morning.

4th. Repeat the hot and cold foot-bath, as often as the feet grow cold and pale.

5th. For a hot back ache, apply as cool compress. If chills accompany the back ache, apply hot cloths, with rubbing and kneading, to bring the blood to the surface.

If the habit is very bilious, use acid fruits freely; if emaciated, use less fruit and more of the preparations of wheat. Do not, at any time, study or work to exhaustion; indicated by trembling, by wakefulness, and twitching of nerves.

This special and constitutional treatment, conscientiously followed, will, in six months, bring the glow of rosy health, elasticity, and sparkle of life and joy to faces now pale, to hearts now sad.



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TIME LY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

BULWER'S CONFESSIONS.

YEARS ago, when the Water-Cure was young, Sir Edward Lytton Bulwer looked into it—went into it—and wrote out and published his "Confessions and Observations," which "every body" of *that* period read with interest. Bulwer was an invalid; had consulted, to use his own words, "half the faculty," and to no purpose. He heard of Priessnitz and of Gräfenberg, and to Malvern Water-Cure he went, to be killed or to be cured. He took treatment, was re-created, as it were, and restored. He tells the story, in his own inimitable way, and we reproduce it in our present number of SCIENCE OF HEALTH, for the benefit of a new generation of readers.

There have been modifications in the use or practice of Water-Cure since Bulwer's Confessions. But he called the world's attention to the subject, and water in its various temperatures now enters into the practice of all schools and systems of medicine. During the late wars, water dressings were largely used in all the hospitals. Time was, and that, too, within the memory of the middle-aged reader, when patients were literally burned to death by violent fevers, which first drove them to madness and despair, and then to death, while crying for water, water, which an ignorant and barbarous school of regular

medical practitioners denied them. It was contrary to the old school teachings to give water, inside or out, to a *fever* patient! It is very different now; and if water is now used for many other purposes, *besides* navigation, Bulwer assisted much in popularizing its use as a remedial agent. Nor can there be a doubt that, to the use of this most potent agent, he owed the restoration of a shattered constitution to comparatively good health, and to the prolongation of his most active and laborious life. The reader of *this*, who fails to read *that*, misses a treat. Should there be a sufficient demand to warrant it, we will issue the Confessions in a tract, for gratuitous distribution in neighborhoods "where they will do most good."

SUMMER COMPLAINTS.

As in July, so in August and September, summer complaints continue, and the havoc of children is fearful. More than twelve thousand, under two years old, die here in New York every year. Statistics show that more than three hundred thousand, under one year old, die every year in Great Britain. Is this according to the will of Providence? Or is it through ignorance and violated law? In our great cities the gutters have a horrible stench. The tenement-houses are pestilential. Tobacco smoke renders

the whole atmosphere suffocative. Stables, slaughter-houses, cemeteries, distilleries, dumping-grounds, unclean barn-yards, pig pens, privies, water-closets, rendering establishments, etc., contribute to the malarial influences.

If the reader would survive these accumulated miasms, let him keep his depurating organs—the skin, liver, lungs, bowels, and kidneys—free, so that the impurities and poisons may go through. If they lodge and accumulate, sickness is certain, death possible. Look well to all of your personal habits. Do not exhaust your vital powers by night-work or debauchery; use simple food; never overload the stomach; bathe daily. Beware of morphine, tannin, strychnine, turpentine, and all similar things. Above all things, ventilate your apartments, especially your bed-rooms, during sleep. Out-door air may be bad, but in-door excretions are worse.

Besides the causes above-named, may be added, unripe fruits, stale vegetables, swill milk, from sick or still-fed cows, with vitiated air, in unventilated rooms, cellars, cars, cabins, theatres, etc. More disease is generated in our ill-ventilated play-houses than appears in the records. We would treat these as some city Christians treat their churches during the summer, namely, shut them up.

For diarrhoea, burnt brandy and sugar,—the most constipating of all substances—will be recommended by drug doctors, and many will experiment on themselves by using blackberry wine, ginger, syrups, rhubarb root, Vinegar Bitters, and other quack compounds, called “Cure Alls.”

The strictest temperance in eating, drinking, and exercise is indispensable. One must also carefully regulate his passions, his temper, and all his emotions. The only safe way is to live right, avoid all doctor’s stuff, and trust to common sense, nature, and to God, for the means to carry one safely through.

HEALTH RESORTS.

NOT many years ago, mineral springs, sulphur springs, hot springs, etc., were the special resorts of invalids. When, in some out-of-the-way or secluded spot, the pioneer farmer found a spring with water so strongly impregnated with “bad smells,” that thirsty cattle would not drink of it, he imagined himself possessed of a prospective fortune. “Lo, and behold, here is a pool with water of curative properties; come and drink thereof, and bathe therein, and be healed.” A chemical analysis; newspaper puffing; worthless testimonials from any number of deluded men and women, soon made the place a popular resort, not only for invalids, but, strangely enough, also for fashionable flirts and foolish beaux. “We are off for The Springs!” bag and baggage; and finding comparatively little to eat, with plenty of water—which tastes badly, and smells worse—to drink, we remain a month; of course, we lie off, walk, ride, sleep, and rest—we get better. Impure spring water, like poisonous drugs in *other* cases, get credit for the improvement, which other circumstances combined produced.

Now, we maintain that almost any change, which takes one out of a rut, off from a tread-wheel, or out of a beaten track, where life is only “hum-drum,” and without healthful variety, will prove useful, in the way of giving new life, vigor, and health. The high and dry atmosphere of Minnesota was considered a panacea for consumptives, and thousands flocked thither. Many, no doubt, were benefited by the change. A change of air, change of diet, change of occupation, of scenery, of surroundings, and, by their faith. Some went “too late,” and did not return. Florida has become a winter resort for health-seekers—not in this case because of mineral springs, but because of its soft and mild tropical temperature. So of Aiken, S. C., por-

tions of Georgia, and many other places in the sunny South. Of late, Southern California is receiving many invalid visitors, as its neighbor, Mexico, is sure to do, when fairly opened to civilization and enterprize. No more perfect climate can be found on the globe than that of much of Mexico. Our New England mountains will always possess irresistible attractions for health and pleasure seekers in summer. So will her sea-shores. Those residing near the sea, should summer in the mountains, or inland; while those residing inland, or in the mountains, should breathe sea-air for a while. But, as a summer resort for health-seekers Americans, where on this earth can better conditions be found than in our own incomparably grand and sublime Rocky Mountains? Let clergymen with "sore throats," and let fashionable Miss-Nancys go to Europe, before having crossed the Mississippi, if they will; but let more sensible people learn *something* of the beauties, magnificence, and healthfulness of their own great country, before going abroad, and exposing their ignorance.

We need not enumerate the charming resorts in each and all the States. Take, for example, our own great State of New York. It is full of "beauty spots," from the Palisades on the Hudson to the Great Lakes. New Jersey, also, has her mountains, rivers, water-falls, and her sandy sea-coast. Then turn to Pennsylvania, with her glorious hills, her mountains, her forests, and her charming scenery; Maryland, with her monumental city; Delaware, with her Brandywine—which never intoxicates; and Old Virginia, "mother of Presidents." Nothing but the "peculiar institution" prevented her from occupying one of the foremost, —if not the foremost—positions among the States. In climate, soil, wood, water, and minerals, she is almost without a peer. Then there is the ever-beautiful

Kentucky, with her oaks and blue grass; rich and prosperous Ohio; enterprising Michigan, and go-a-head Illinois, with "phoenix" Chicago. Indiana is prospectively one of our best States. Wisconsin is beautiful; Iowa is already rich, great, grand; Missouri, with her iron mountains, rich soil, fine climate, is the compeer of the best; lovely Tennessee, rich Arkansas, pleasant Mississippi, plucky Alabama, proud Georgia, lovely Louisiana, and great Texas, have only to wheel into line, open up their rivers, lay down the necessary railways, establish schools and manufactoryes, to become prosperous and great. Kansas is one of the most wide-awake and enterprising States in the Union. Nebraska is filling up rapidly; Dakotah, like Wyoming, Montana, Colorado, Idaho, Utah, Nevada, and New Mexico, is full of "grass, grain, silver, and gold." Among them may be seen some of the grandest scenery to be found in the wide world. California, with her Golden Gate; Oregon, with Columbia River; and Washington, with her Puget's Sound, form a chain of richness, grandeur, and beauty all their own. Those who want to fish, for profit or for fun, may go to Alaska, and get their fill. Thus it will be seen that we have for "resorts" every variety of soil, climate, and condition, for health or for pleasure, under the sun. Then why seek foreign shores? or why fill our bodies with poisonous drugs? Why not rather look to rest, recreation, travel, plain and simple food, with pure water, and the pure air of heaven, for the means of restoring lost health? (See a list of more than twenty of the best Hygienic Homes and Institutes, in each number of THE SCIENCE OF HEALTH.)

Just here comes in our old friend, N. C. Meeker, of the Greeley Colony, with his Colorado *Tribune*, in which he says:

"I have had a good opportunity to find out what the present opinion of in-

telligent people in the East is regarding Colorado, and will state it. There are three general ideas which are well defined in the minds of the best informed, and which are spreading in the minds of the general public. First, it is believed that the mineral wealth of Colorado is prospectively immense, but at present not large. Second, that the mountain scenery is grand, and on the whole, superior to that of California, for the reason that you have the Rocky Mountains. Third, that Colorado is the most healthful region in America, and that if any person is in a low state of health, he will be almost certain to be benefited by going to Colorado. This is the main and prevailing idea. That Colorado has any special advantages in regard to agriculture; or that much, if anything, can be grown from the soil, is little considered, and this probably from the reason that the higher class, which is leading in the opinion, has but little realization of such matters. I will give a few instances of the reputation that Colorado has for healthfulness. Chief Justice Chase, recently deceased, had been in poor health for some time, and just before his death he was making arrangements for going to Colorado, and if his life had been spared, he would undoubtedly have gone. J. Edgar Thompson, President of the Pennsylvania Central Railroad, who is somewhat aged and in poor health, said at once that he wanted to go to Colorado this summer. Henry Carey, the great Free Trade antagonist, and who is as fine a looking old gentleman as one will see among millions of men, said almost the same thing. Judge Kelly said he must certainly go out this summer. Others almost equally prominent also want to go, and the same is to be said of several distinguished ladies. From this brief statement, the people of Colorado may be certain that our country is going to be a most wonderful resort for health-seekers—in short, that Colorado is to become the grand sanitarium of the United States. I do not want to convey the idea that Colorado has greater advantages in regard to health than Wyom-

ing, New Mexico, or other similar regions; but it certainly has the advantage in regard to nearness and accessibility, and the comparative great extent of productive land already in cultivation."

[Mr. Meeker urges the building of first class hotels, for the accommodation of guests. It will be seen that he is a good temperance man:

"Some say that a hotel, to be popular or successful, must have a bar; and it is argued that capitalists will not invest in such an enterprise unless liquor selling is allowed. This is not true; for there are plenty of wealthy and intelligent men, who would like, above all things, to stop at such a hotel as would strictly represent our principles—and if it were built, they would be attracted to it. If any one supposes that temperance men, and moral men, and clean men, and good farming men, and true and loving men, do not like nice, elegant quarters, as much as drinking, gambling, and generally loose men, and even more so, it is a great mistake."

[Now, while we agree with Mr. Meeker as to the desirableness, nay, the necessity, of good hotels, we ourselves are not opposed to "camping out," during the summer, in such a climate as that of Colorado. Indeed, we have had some very agreeable experiences there, in this way, and shall be most happy to repeat them, when our duties here permit.]

WHAT IT COSTS TO TRAVEL.

Considering all things, health, comfort, distance, etc., travelling in America is really very cheap. We have good railways, and for the most part, well managed; the best cars in the world—they call them "coaches" in the old country. Indeed, mother England—though slow to see anything good in her American cousin—has recently given orders for a number of our palace cars, to be manufactured for her use! She has nothing so comfortable, so safe, or so sumptuous in all her realms. Again, we

lead the world! But what does it cost?

Let us see; GOING SOUTH, we can buy tickets at 413 Broadway, near our own door, from New York to Philadelphia, distance 90 miles, for \$3.25; to Baltimore, 189 miles, for \$6.20; to Washington, 228 miles, for \$7.50; to Richmond, 312 miles, \$12.85; to Charleston, 813 miles, \$25.75; to Mobile, 1,844 miles, \$45.00; to New Orleans, 1,900 miles, \$50.00; to Galveston, 2,140 miles, \$68.75. Or,

GOING WEST, say to Buffalo, 450 miles, \$9.25; to Detroit, 679 miles, \$16.25; to Chicago, 965 miles, \$22.00; or, to Cleveland, 630 miles, \$14.25; to Toledo, 740 miles, \$16.75; to Cincinnati, 880 miles, \$20.00; St. Louis, 1,175 miles, \$27.00; to Topeka, 1,437 miles, \$41.25; to Omaha, 1,453 miles, \$41.70; to Cheyenne 2,115 m. \$72.70; to Denver, 2,009 miles, \$79.90; to Ogden, 2,499 miles, \$119.20; to Salt Lake City, 2,536 miles, \$121.70; to Sacramento, 4,165 miles, \$140; to San Francisco, 4,300 miles, \$140.00.

GOING NORTH, from New York to Montreal, 450 miles, \$12.05; to Quebec, 520 miles, \$14.50; or,

GOING EAST, from New York to Boston, 230 miles, \$6.00, to Bangor, 476 miles, about \$12.00; St. John's, N. B., 687 miles, about \$14.00; or to Halifax, N. S., 957 miles, \$19.00.

Slight variations may be made from time to time, for first-class passengers; but the above rates rule at present.

Special arrangements may be made with railway companies, for round trips, return tickets, and for excursion parties. And we much prefer to pay out money for Railway excursions, rather than for drugs, doctors, or for dissipation and fashionable folly, cooped up at expensive watering places.

When long trips are taken, one can travel by night or by day, as suits himself. He can dine at stations, or take a hamper of provisions with him, and live

as he likes. In any event, he will be more liable to over-eat than not to eat enough. He will find moderation and temperance here, as elsewhere, favorable to health, comfort, rest, sleep, and thorough recuperation. It is a FACT, that railway riding is, in almost all cases of illness, exhaustion, or decline, found to be very beneficial. Bed-ridden invalids often recover during a long journey by railway. There is magnetism, or electricity, generated by the rapid motions of iron wheels on iron rails, which is diffused through every timber, every bone, every muscle, and every nerve, of all on board. Indeed, it is, in many cases, REMEDIAL. Reader, are you ill? Why not take a dose of — railroad? THE SCIENCE OF HEALTH recommends it. "When taken," you will probably be moderately "well shaken," and *this* will do you good. Some physicians are afraid to take their own prescriptions. Not so with us. We have already taken more than 50,000 miles of railroading in America, and not a little abroad, and *always* with happiest results, never having met with a serious accident. We are hungering for more, and shall have it pretty soon!

AGRICULTURAL, MECHANICAL and other FAIRS.

Each of the States, many of their Counties, and not a few of our American Towns, now hold annual, or semi-annual fairs and exhibitions, which call the people together, and afford them information, recreation, and education. One brings the best specimen of wheat—the staff of life,—and states the kinds of seed, soil, fertilizers, and cultivation, which secured for him such excellent results. Another exhibits the best corn, rye, oats, barley, peas, beans, potatoes,—after our "model,"—beets, turnips, apples, pears, plums, canned fruits, jellies, etc., while the implement makers show the best plows—

single, gang, side-hill, reversible, and steam, harrows, hoes, churns, washers, wringers, etc. What a rattling and clattering they make, and how interested all the men, women and children become! Is not this mixing and mingling of mind with mind healthful? Is it not pleasant and profitable? Then look at the great mountains of beef, the adipose pigs, the gentle and white fleeced sheep, the coops of choice poultry, with heathenish names; then, look at those agile, graceful and beautiful horses, how proud, confident, submissive and willing! Oh, that they might escape the abuse which low, ignorant, and wicked ruffians sometimes inflict on them! the cruel spur in their

sides! the cutting lash, or bruising club, or heavy boot with which they are often kicked! Oh, for a kind Rarey in every stable. Then the racing, gambling, drinking, and fighting! These are the excrescences, the perversions, the abuses and evils—none of them necessary—which are met with at public fairs and exhibitions. Why not correct them? But, as in most conditions of life, the good greatly preponderates over the evil. We may take courage and push on, always thanking God for the blessings enjoyed, and that matters are no worse. Then gather together your specimens, those who can, and place them on exhibition. May we be there to see!

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

OVER-WORK.—COMPLETELY BROKEN DOWN.—Bell Creek, Nebraska.—“I have been reading your health journal for some time, with constantly increasing interest. Have particularly noticed your *Talks with Correspondents*, and my wife has urged me to avail myself of your ability and willingness to give me much needed information.

I will state my case in brief: I am thirty-three, naturally *active* and *intense*, except an inclination toward biliousness, which has been growing less every year; have been one of the most sound and healthy men in the country. Have never used intoxicating drinks nor tobacco; no stimulating condiments, and but little milk, and neither tea nor coffee. In fact, have been temperate in all things except *work*. For several years I have been so engaged as to exert all my mental powers to the utmost, and to feel the stress of great anxiety. At times, I have drawn heavily upon my physical strength in lifting, though only for a few days at a time.

For two years I had to travel by buggy a great deal. Such has been my life, and now the result. One year and a half ago I broke down completely, with but little warning; my head hurting me much; the trouble supposed to be with the brain alone. I was compelled to give up business entirely for months, and traveled around, keeping quiet and easy as possible. I could not read, talk, or think, nor even hear much talking, without my head becoming very hot and painful. I found that buggy driving produced nearly the

same result, and has to this time, though not nearly so bad as that of unusual mental excitement. For a year past, I have been compelled to attend to business, but have done so as easily as possible, and have abstained from lifting entirely; still I am no better, and intend, for a time, to give it up entirely. I feel utterly unfit for, and unable to do business, and have a perfect dread of mental exertion. What shall I do, and when can I hope to be well?”

When a business man consumes, not only the interest on his capital, but the capital itself, he will be poor indeed, and must take time to accumulate the wherewithal to begin business again. But when one uses or consumes only the *interest*, leaving the principal intact, he may go on indefinitely. So of one's *vital* capital. If we use up only the interest of our constitution, we are safe; but when we use up both interest and principal, what have we left? only poverty. This is the present condition of our correspondent, and yet he asks “When can I hope to be well?” Does he look for a miracle to be performed in his case? or, will he take a common-sense view of the situation; and, like a farmer, who has “skinned” his ground, put on fresh fertilizers, give rest to the ground by summer fallowing, and so, in time, bring it into good tilth again. Our Nebraska friend must *rest* and *recuperate*. He may ride a horse, herd cattle, or watch the flocks, oversee a gold or silver mine in the mountains, tend a toll-gate, grow chickens, fruit trees, nursery stock, or navigate a flat boat on the Mississippi River;

any thing light and easy; till, by keeping close to Nature for a year or two, she tones him up, and puts him in working condition again. If it shall take one, two, three, or five years to do it, he must patiently submit. The world was not made in a day. Time, time, rest, re-creation!

WRONG LIVING.—Mrs. R.—For years her head has ached and is seldom free from pain. She has much pain in the left side; and a year or more past, soreness in a small spot on left breast, with a slight hacking cough, and short breath at night; cannot lie on the right side, and has numbness of the left ankle; pain in stomach; bowels relaxed; lame back; no strength, etc. Is a dressmaker; has sat up late o' nights; a cup of good tea to keep awake was necessary; has paid no attention to diet—eating heartily; has a coated tongue much of the time. She has a young babe, and asks: "Shall I ever get my strength? What shall I do?"

"Is it a sin to be sick?" "Is not the sin of ignorance winked at?" This poor woman has violated the laws of life and health, and is now suffering the penalty thereof. She needs a year's treatment and rest at an old-fashioned Water-Cure, or at a Hygeian Home, where patients are put in the way of recovering, and, at the same time, taught how to live. Let her quit dress-making, tea drinking, over-eating, and practice the first principles of common-sense and physiological living.

RHEUMATISM.—M. I. R.—There can be no doubt that it is rheumatism which annoys you. The wet-sheet pack, and other hygienic appliances, will take it out of you. See "THE BATH," for processes. Sweet milk for the babe, is better than butter-milk. See "Physical Needs of a Baby" in July number.

A COMPLICATION OF AILMENTS.—Mrs. A. B. writes from Hancock Co., Illinois, stating that she was married at nineteen, became a mother at twenty, and again at twenty-one. Then came disease of lungs; weak breast; catarrh; a dry cough; distressing head-ache; weak back; low spirits; and she fears she will become insane. Has been treated by regular and eclectic physicians; but gets no better. Her diet is the same as that of farmer's wives generally. She wishes *The Science of Health* to put her in the way of recovery.

She needs a course of mild treatment at a Hygienic Institute, which would provide such change of diet, air, and surroundings, as will favor recovery. She requires the most thorough rest, all the sleep she can secure; moderate exercise, cheerful society, music, and such entertainment as will amuse and divert her mind. But she must have faith in the probabilities and possibilities of Dame Nature's powers to restore her to health. What good can drugs do, in such a case?

SULPHUR ON THE HAIR.—R. S.—"Please to tell me if sulphur is bad for the hair? I read in a newspaper a remedy for cleaning the hair of dandruff, which was to pour cold water on flour of sulphur, and let it stand two or three days, stirring it occasionally; then, when settled, pour the water off and wash the head with it. But I have also heard that sulphur was very injurious to the hair, and have been afraid to use it."

Use pure, soft water, with a very little fine toilet soap to wash the hair—and head—occasionally; then rub dry with towels. Use no sulphur, no tonics, no oils, or other grease. Brush daily; but be careful not to irritate the scalp with the sharp teeth of fine combs. In its normal condition, the human hair is a perfect electrical conductor, but when full of grease, it becomes a non-conductor, and often causes headache.

DEBILITY.—D. C., of Hodgdon. Such questions are answered only by letter. Give address, with stamp, and we will reply.

TUBERCULAR CONSUMPTION.—W. R. J.—The offensive yellow particles which you expectorate, indicate tuberculosis of the lungs. The disorganization of the lungs is not extensive, or your general health would fail; but it should be attended to at once.

OZENA.—I. H. I.—The case you describe is known as ozena, or malignant coryza, and depends on caries or ulceration of the spongy bones of the nostrils. It may have been caused by the injury you allude to. As to your own case, you are simply bilious, and the remedy is general purification.

WEAK KNEES.—R. A. L.—"When I go up stairs, walk, or run, my knees 'give out,' and cause me much inconvenience. What shall I do?"

Rub them, or have them rubbed, vigorously night and morning with the naked hands for ten minutes or more, and more blood will be sent to strengthen the weak parts.

BORN IN THE CHANGE OF THE MOON.—H. E. S. C.—"Do you believe an individual born during the change of the moon is less likely to live to twenty years of age than any other person?"

No, such belief is only a foolish superstition, kept alive by swindling astrologists.

DEAFNESS.—PARALYSIS.—"1. Three years ago I received a blow on the head, causing deafness; since that time, my hearing has improved some. I have been examined by a physician, who says the Eustachian tube is closed; his method of cure is to place an instrument up my nose and blow through it. Is that likely to be of any benefit? 2. My right arm and shoulder go

to sleep when I lie on that side. What is the cause?" Is Buck-wheat healthy?

1. We should advise you to consult an aurist.

2. There may be slight paralysis, caused by the injury to the head. In this case, active treatment may be necessary.

3. See "Hygienic Hand-Book." Buck-wheat may be eaten in winter, in moderate quantity, but real wheat is better.

NERVOUSNESS.—S. F. W.—"I am troubled with nervousness and pain in the heart, with cold extremities. What course ought I to pursue?"

Indigestion, dyspepsia, and imperfect circulation, may be corrected by proper food, exercise, bathing, etc. Why not ride a horse, row a boat, climb the hills? The wet sheet pack will be of service to you. See "The Bath."

NASAL CATARRH.—L. L.—"Can you suggest any remedy for this loathsome disease. It prevails extensively in this portion of the West, and hosts of quacks in St. Paul and other towns are making a specialty of attempting to cure it."

In No. 1 *Science of Health*, we gave the cause and cure of this infirmity, in a four-page article, to which we refer. Look out for the quacks and patent medicine swindlers.

RHUBARB.—"Please say whether among the vegetables in use at this season Rhubarb with or without sugar is injurious. I find it palatable mixed with sugar, and my friends all strongly recommend it; but though I like it, I imagine acids of all kinds are injurious."

When taken in moderation by one in health, no harm will come of it; too much sugar is generally used with all our fruits.

PERSPIRE.—F. O. L.—"Why is it that some persons never perspire; or if any, very little?"

It may be because of disease, or that the skin does not perform its functions properly. Temperament has a great deal to do with perspiration.

HOT FEET.—R. S. O.—"My feet suffer through a burning sensation; have tried thick and thin shoes without relief. What shall I do?"

Bathe the feet night and morning; wear ventilated shoes, leather soles, with cloth or buck-skin uppers, and go bare foot, and stand on fresh earth when convenient, to remove the fever or excessive heat. All will come right in good time.

DYSPEPSIA.—A. L. W.—"I am troubled with indigestion and sour stomach; am feverish in the evening; have cold lower extremities and hot head; am inclined to constipation; I am thin in flesh; work on a farm. What must I do?"

Regulate your bowels by a proper diet; keep the pores of the skin open by a daily morning

hand bath. Avoid all condiments, stimulants, etc., and when free from constipation, you will be comparatively well.

PIMPLES.—J. E. B.—"What is the cause and cure for pimples on the face that come in the spring and go away in the winter?"

Bad blood. Made pure, by change of diet, more out-door air, less greasy food, more fruits, vegetables, etc.

EXCESSIVE SALIVA.—J. H. F.—"My wife is troubled with an excessive flow of saliva, which is very annoying. We are trying to live hygienically. Can you tell us the cause, and what will prevent it?"

Abstain from salt, pepper, spices, pungent sauces, or condiments of all kinds; so also, from tea and coffee; living on plain and simple food, drinking moderately of water only, and in time, the flow will become less and less copious, till it will give no further trouble.

HEADACHE, NO APPETITE, CONSTIPATION.—G. L. W.—"My wife has been ill for some time; has taken a good supply of drugs and patent medicines, notwithstanding which she 'still lives,' though she is very poorly. Now we come to you for advice."

1st. Stop the drugs. 2d. Remove constipation by causing bowels to move; use syringe with tepid water if necessary; then, with proper food, fruits, wheat-meal bread, vegetables, etc. (See "Hydro-pathic Cook Book.") she may, in time, become regular, when headache will disappear, and appetite return.

FLATULENCY, ACHING BOWELS, ETC.—P. A. M.—"complains of cold cramps, sore throat, aching back," etc.

Hot fomentations followed with gentle rubbing and warm flannels, will soon take out the kinks, and stop the cramps and belly-ache, and, at the same time, relieve the throat, back, etc. Then if the diet be moderate and suitable, the flatulence will also disappear.

CRAMPS, MOTES IN THE EYES.—J. W. B.—"1. I am troubled with a cramp in my feet at night; a severe pain. What shall I do to rid myself of it. Does not happen every night."

2. In the January No. on page fifty, you give an explanation of 'Motes in the Eyes.' There are times when almost any thing that I look at, will be partially covered by the dark spots or balls. Some of them have tails, or are connected with a line. What is the cause and what the remedy?

1. Take a brisk walk for ten or fifteen minutes, and then, on retiring, rub the lower limbs, including the feet, to obtain a more active circulation of the blood: this will prevent cramp.

2. You should consult a competent oculist.

Many other answers, now in type, are deferred for want of room.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

Testimony.—A Request Granted.

Alexandria, Va., May 26th, 1873.

MY DEAR MR. WELLS.—An “*inspiration!*” One which I have good reason to believe will, if followed out, prove a blessing to many a poor sufferer. What is it? Why, to make an appeal to that constant desire to do good, by which I know you to be ever actuated; an appeal in the shape of this request, that you will, by their reproduction in the forthcoming number of *The Science of Health*, afford to ‘Young America’ of today, the opportunity of making acquaintance with those ‘*Confessions of a Water-Cure Patient*’ of Sir Edward Lytton Bulwer, (now recently deceased as Lord Lytton;) which, some thirty years ago, constituted for ourselves of that day, such very delightful reading; and for a portion of us, myself and every member of my family included, reading so very highly profitable withal; profitable in that most precious of all possible forms of profitability, *conduciveness to Health*.

Since that day, I have, at various periods, not few but rather far between, bought of you—for presents to friends whom I longed to rescue from the pangs of the *drug-fleld*—a good many copies of those two little books, by no means the least useful of your many useful publications, ‘*THE PRACTICE OF THE WATER-CURE*,’ by Dr. James Wilson, (Bulwer’s doctor;) and ‘*THE PHILOSOPHY OF THE WATER-CURE*,’ by Dr. John Balburnie; as an appendix to the last of which two little works, Dr. Balburnie, has the good idea of corroborating the favorable impressions made by his own masterly exposition of the subject by means of Bulwer’s case, as narrated in those ‘*CONFessions*’ of his, which, after at least a dozen re-perusals, are for me, among the most charmingly refreshing productions of that fascinating pen.

In the use to which they have been put by myself, in the performance of my share of *anti-drug* endeavors, the position assigned to those memorable confessions has been the reverse of that which they are made to occupy in Dr. Balburnie’s work, for I have put them in the fore front of my array; feeling sure that they can never fail to break the enemy’s line, and make a gap wide enough for slower moving corps to come into position and entrench themselves at leisure. Dropping all metaphor, in drawing up my prescription of *anti-drug* reading, Bulwer’s ‘*CONFessions*’ have been put down by me as the first dose to be taken.

And a dose of nectarian properties has it always proved itself? In no instance have my expectations from it been disappointed; and although

there have been afterwards backsliders not a few, and lapses into the ‘*good old ways*;’ (as, beyond all doubt, they are in *Satan’s estimation*;) yet, as a means of a first impression of the most decisive character, never was that dose known to fail of its expected *anti-drug* efficacy.

Hence the wish here expressed by me, for their reproduction on the pages of your *Science of Health*; their appearance in which, from the philanthropic spirit which at the close breathes out in so gracefully earnest a tone of entreaty, could not but be accepted; now, that the author has so recently departed this life, as a well-timed recognition in the way of reminiscence of the service rendered by him on that occasion in making his personal experience in recovery from seemingly hopeless prostration, serviceable to his fellow-men; and in thus manifesting, for their benefit, his share in that grandest of all grand facts, *human solidarity*. With most cordial regard, always your old friend, N. P. TRIST.

EPHRAIM IS WEDDED TO HIS IDOLS.—J. H. J. writes from Michigan:—“For enclosed stamps, please send New Illustrated Catalogue. Also Special List of Surgical and Anatomical Works. I will try to send some new subscribers for *The Science of Health*. Ague is very prevalent here, quinine and capsicum in good demand, doctors plentiful, and drug-stores flourishing; certainly a proper field for *The Science of Health*, but not the most promising one, for ‘Ephraim is Wedded to his Idols.’ Ask some of the settlers to take *The Science of Health*; ‘Is it a story paper like N. Y.— or N. Y.—?’ ‘No, ‘tis filled with common-sense and useful knowledge, not love-sick trash and cheap blood and thunder stories.’ ‘We don’t want it, too dry for me.’ This place has 2,500 inhabitants, five drug stores, (the sixth one building,) eight doctors, and ten lawyers. Its rascality, chicanery, and general ill health, will compare with any other town of its size in the Union. A sample of the medical treatment is two cases of inflammation of the lungs last month, only two deaths; one case of small-pox, one death. Out of three cases of small-pox last year, two deaths. One fellow went across the Lake, and would not use any stronger medicine than *whiskey*. It undoubtedly saved his life.”

Lack of *medicine*, not *whiskey*, I refer to. They buried the first man, and saved burying the second by burning the house. I presume he was *scientifically* murdered previous to the holocaust. Remittents are not so generally fatal, they stand *Salvation* better; have more vitality therefore. Special Providence ‘don’t intervene.’”

The Library.

WEDLOCK; or, the Right Relations of the SEXES. A Scientific Treatise disclosing the Laws of Conjugal Selection, and showing Who May and Who May Not Marry. By SAMUEL R. WELLS. One vol., 288 pp. \$1.50; in fancy gilt, \$2.

The *Arlington Advocate* says: "This is one of those informative books of the day from which may be gathered many necessary and wholesome lessons. Starting with the self-acknowledged assertion that marriage has its foundation deeply and securely laid in the social nature of man, the author proceeds by many arguments, made plain and familiar by illustration, the duty of all who would live happily in the domestic relation. We are glad to see this little messenger or danger-signal held out to our young men and maidens, at this time; particularly as the plain, practical common-sense doctrines it advocates are considered as so "very unfashionable and out of date" by so many whom it so intimately concerns."

ON OVARIOTOMY. By J. Marion Sims, M.D., one of the surgeons to the New York State Woman's Hospital, etc. Reprinted from the N. Y. Medical Journal, December, 1872, and April, 1873. One vol., octavo; pp 85. Muslin, price, . New York : D. Appleton & Co.

What is a miracle? In answer, one may cite the Bible; refer to feeding the multitude with those barley loaves and the few fishes, and having so much left; turning water into wine; opening the eyes of the blind; walking on water, etc. Nowadays, those things only which pass human reason, and which cannot be accounted for, pass for miracles. But here is a surgeon, who, with the use of a smelling-bottle puts a patient to sleep, cuts one open, takes out tumors, cuts out diseased portions of the intestines, splices the sound parts, sews up the abdomen, and the patient recovers. Dr. Sims tells how it is done. Surgeons should learn of him.

FRED'S HARD FIGHT. By Marion Howard, author of "Bert Ashley's Lessons," "Oriel," "Annie's Influence," etc. One vol., 12mo, pp. 324. Cloth, price \$1.25. New York : National Temperance Society.

A capital temperance story, calculated to fortify the reader against yielding to the temptation of drink. Put it into your Sunday-School library. It will do good—may save a soul alive!

LIFE AT HOME; or, the Family and its Members.—Including Husbands and Wives, Parents, Children, Brothers, Sisters, Employers and Employed, The Altar in the House, etc. By Rev. WILLIAM AIRMAN, D. D. Tinted paper, fancy muslin, bevelled boards, 12mo, 250 pp. Cloth, \$1.50; full gilt, \$2.

So long as that true sentiment so much loved by the puritans of New England in the early times, so much venerated now by all who truly love our country and its institutions, this book will find its many readers. Full of golden legends, it comes before the whole people with a self-commanding authority and an earnestness of purpose that will be hard to resist. We reluctantly lay aside this little volume, which we commend to every home; it should find a place in every Sabbath-School library in our land; it is a pearl of the first water richly deserving a golden string.—*Arlington Advocate*.

How's **MUSICAL MONTHLY** contains some twenty or more compositions, by the best authors, and sells at 35 cents a number, published by ELIAS HOW, 103 Court Street, Boston, Mass. How so much well printed music can be afforded for so small a price, we do not know.

HISTOLOGICAL DEMONSTRATIONS. A Guide to the Microscopical Examinations of the Animal Tissue in Health and Disease, for the use of the Medical and Veterinary Professions. Edited by George T. Brown. With 220 illustrations. Post 8vo, pp. 268, \$5.

AMERICAN HAND-BOOK OF CHEMICAL AND PHYSICAL APPARATUS. For Schools, Colleges, Factories, etc. 8vo, \$1.50.

WORK; A STORY OF EXPERIENCE.—Illustrated. By Miss Louisa M. Alcott. 12mo, \$1.75.

ELECTRICITY AND MAGNETISM.—By FLEMING JENKIN, F. R. S. 1 vol., 12mo, 379 pages. Price, \$1.50.

Hygienic Seasoning.

Too MUCH LEARNING—Mr. Barnum has several elephants in training for his traveling show. They are taught to dance, to turn the organ, and to perform various other feats. One of these elephants died recently. The news was sent to Mr. Barnum, written on the back of a card, by the elephant trainer, and read as follows: "Mr. Barnum, one of the elefants is ded. He dyed of enformation." "That's all right," says Barnum, on reading the letter. "We must not teach elephants so much—They can't stand a high degree of education. Our giving this animal such a stock of 'enformation' has cost me \$10,000. Hereafter confine them to the rudiments."

BREACH of good manners—For ruin to stare you in the face.

The conductor of a horse-car said to a young lady, one of his passengers, "Miss, your fare." "Well, if I am," she replied, "I don't want any of your impertinence."

NATURE's tailoring—A potato patch.

HONEST SYMPATHY.—Intelligent boy—"Pa, I'm sorry you've got the 'Fluenza?'" "Why, laddie?" Boy—"Cause I might catch it, you know!"

ADJUSTMENT.—Bootmaker (who has a deal of trouble with his customer)—"I think, sir, if you were to cut your corns, I could more easily find you a pair—." Choleric Old Gentleman—"Cut my corns, sir! I ask you to fit me a pair o'boots to my feet, sir! I'm not going to plane my feet down to fit your boots!"—Punch.

A wag went to the station at one of the railroads, one evening, and finding the best car full, said in a loud voice:—"Why, this car isn't going." Of course this caused a general stampede, and the wag took the best seat. In the midst of the indignation the wag observed:—"Well, it wasn't then, but it is now."

A QUAKER having sold a fine-looking but blind horse, asked the purchaser, "Well, my friend, dost thou see any fault in him?" "No," was the answer. "Neither will he see any fault in thee," said old broadbrim.



No. 15.] New York, Sept., 1873. [Vol. III.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET, BATHING, SLEEP, EXERCISE AND REST.

HOW LONG MAY WE LIVE?

"All that a man hath will he give for his life." "Self-preservation is the first law of nature." These and a multitude of similar aphorisms are abundantly familiar to us all. Many times in our lives are we frosted down to the ground, though not killed; we sprout up again; and, instead of one main stem, carry up two and three, and blossom and bear fruit cheerily, till the final frost of death lays us low forevermore. Thus it should be; life means growth, development, conquest, or it means nothing.

How long may we live? Shall we measure the three score and ten, or shall the blasted bud, the ear of corn, blighted in the milk, be a fitting emblem to be placed on our tomb-stones? There are various circumstances upon which longevity depends, and it is not difficult for each individual to form an approximate idea of the length of years it is possible for him, under ordinary circumstances, to attain. Of all nations or tribes, the longest lived are the Jews. The reason of this it is not hard to arrive at. They are the only people whose diet is, and has always been, part and parcel of their religion; they are the only people with whom cleanliness is part and parcel of religion. They are thrifty, industrious, and economical. The first keeps them in good heart, the first two prevent either mind or body from growing stagnant, and all three make it easy for them to enjoy every physical comfort. Stupid,

sickly, and poor Jews are the exception and not the rule.

The New England people are remarkable for their longevity and hardy health. All the world knows how tidy, how industrious, how intelligent, how economical is the average New Englander; what an essential element of his life is *comfort*; physical, intellectual and moral. The Quakers are illustrious instances of the same principle; and to the transmission of longevity as an inheritance in addition to these other traits, the Jews, the New Englanders and the Quakers, are indebted for their vast accumulations and the large results they have to show for having lived in the world. The father of all the Jews lived to be one hundred and seventy-five years old, and Jacob might have reached that age, if he had not grieved so over the fancied death of Joseph. The patriarchs of New England averaged seventy years; the Quakers are proverbially long lived.

In different families there is a great difference in rapidity of growth. Some reach manhood and womanhood much earlier than others; some at forty are as old as others at sixty. The danger of premature growth is premature death. In general, those who mature early, die early, and those who consume many years in attaining their physical and intellectual stature, have a long lease of life.

Dr. James Mackenzie, an eminent

Scotch physician says "the natural marks by which we discern that a man is made for long life, are principally as follows:

1st. To be descended at least by one side from long-lived parents.

2d. To be of a calm, contented, and cheerful disposition.

3d. To have a just symmetry or conformation of parts, a full chest, well-formed joints and limbs, with a neck and head large rather than small in proportion to the size of the body.

4th. A firm and compact system of vessels, the stamina not too fat, veins large and prominent, a voice somewhat deep, and a skin not too white.

5th. To be a long and sound sleeper.

In addition to these signs, modern writers on longevity affirm that men and women with particularly long bodies in proportion to their height are long lived, that persons of short stature are longer lived than those who are tall, that married men and women live longer than bachelors or maids, widowers or widows; that widows and old maids live longer than widowers and bachelors. Another writer says "A man or woman to be long-lived should have a fully developed osseous frame and muscular organization, be rather middle-sized, and somewhat thick set, have a capacious chest and shoulders, round rather than flat; a pulse strong, and regular, and the veins full at extremities; head not too large, neck neither very long or short, abdomen not projecting, hands large but not too deeply cleft, foot rather thick and broad than long, skin strong, smooth, and clear; complexion not too florid nor too ruddy in youth, hair approaching rather the fair than the black, voice strong, with faculty of retaining the breath long without difficulty, senses acute and clear, but not too delicate; appetite good, and digestion easy; teeth sound, a slow eater, without extra thirst; excretions all regular and free, no violent passions, temperament sanguine, with a little of the phlegmatic.

The physical and mental education in youth and early life has much to do with

longevity. Cardinal De Salis lived to be one hundred and ten years old, and gives the means by which his health was maintained and his life prolonged. "By being old when I was young," says the Cardinal, "I find myself young now I am old. I led a sober and studious, but not a lazy or sedentary life. My diet was sparing though delicate. I rode or walked every day except in rainy weather, when I exercised within door for a couple of hours. So far, I took care of the body; and as to the mind, I endeavored to preserve it in due temper, by a scrupulous obedience to divine commands. By these means, I have arrived at the age of a patriarch, with less injury to my health and constitution than many experience at forty."

At twenty a man is about grown, at forty he has just paid for his rearing; if he dies at forty, the world is no better off for his having lived, since he has returned only what he has received. "In another twenty years he would acquire largely, in still another twenty, if he only averaged to earn his yearly expenses, his acquisitions would become fourfold accumulations." It costs no more to raise a man capable of living eighty years, than it does to raise one who dies at forty; it would seem from these facts, that the prosperity and wealth of a nation depend in considerable measure on the longevity of its citizens. Whatever increases this, insures the fourfold accumulations alluded to above. It is clearly the duty of all men and women, who are capable of taking an interest in the public welfare, to employ all the means known to science to prolong their lives; it is their duty to avoid over-work and excesses of all kinds, that so they may be spared longer to work for their race.

The question of longevity should have much to do in the choice of a trade or profession. If one comes of a short-lived ancestry, or if he inherits diseases and tendencies likely to abbreviate his term of existence, he should not engage in long-winded enterprises. John Jacob Astor, when he organized his Fur Company on the Pacific, deliberately planned

an activity of thirty years, and lived to realize his brightest anticipations. But, in him, all the conditions of longevity met. If a man knows he cannot expect great length of days, he should avoid entering upon such profession or business as requires much time to learn, and large experience to prosecute successfully; and devote himself to something that will yield immediate returns. Delicate and unhealthy children should be given muscular employment, requiring little mental application; and the athletic and sturdy youth be put to learning difficult professions, requiring time, money, and mental expenditure. How

often do we see this mode of procedure reversed.

The inheritor of longevity should take counsel of wisdom, and not suffer his affections to be entangled where he may be sure that early grief must be his lot. In selecting partners in business he should have regard to the same thing.

Habits that promote longevity are early sleep, and early rising, regular employment, and regular hours for meals, the avoidance of paroxysms of rage, excitements or excesses of any kind, and regular periods of relaxation. What articles are the best for diet, will be found elsewhere in these pages.

L. E. L.

PRACTICAL TEMPERANCE.

BY THOS. F. HICKS, M. D.

A PHYSICIAN said to me this morning, "James ——, M. D., was the best Lecturer on Anatomy I ever heard. He understood the subject perfectly, and made everything as plain as if talking to children. He was a man both brilliant and able—but he would drink, and, little by little, he lost his reputation; then his Professorship; and now, he has lost, in great measure, his practice; for people do not like to trust a physician who is liable, at any time, to get drunk."

We pity such a man and think he must be a great sinner; and so, doubtless he is, although, now, he has become so weak that when temptation is great he cannot control himself. His only means of self-help, now, is to keep out of temptation; but there was a time when, in the midst of any temptation, he could "either take it or let it alone." His *great and fatal sin* was that he did not then use his power and "*let it alone.*"

But I wish to call attention to another class of sinners. A talented young clergyman visited a church on trial. He preached with "great acceptance" on Sabbath morning, and went to a farmer's home for dinner. The good sister had a sumptuous dinner, consisting of the usual New England baked pork and beans, with additions and varieties. The young

minister, from the morning's labor, was quite tired, but, also, very hungry, and so allowed himself to eat with unusual heartiness; but, recalling himself, conscious of having eaten too much, he shoved back from the table, when the good sister said:—

"O brother S., you are not done yet! Why, you have had none of my nice pudding;" and he asked to be excused from eating more! But no, he must try the pudding. He did so; and, having found it good, ate heartily of it, and lingered at the table chatting with the family, until startled by the sound of the bell for afternoon service, when he retired to his room to make a hurried preparation for duty. But his mind was dull; his nervous forces were withdrawn from brain to stomach, and he could not pray; but then, the appointment was out, the occasion one of trial, and he *must* preach. In a half-hour he was in the pulpit; the introductory services were performed with difficulty, and yet not so much so as to attract attention. The text was announced, and the sermon commenced; for a few minutes he spoke with apparent ease, then his mind became cloudy; his utterance thick and painful, and he sank back upon the sofa insensible. He was taken to the house at which he ate

his dinner; and, in two days, was carried therefrom a corpse!

Was this man less a sinner than the first? The Professor lost position and practice by drinking; the minister spoilt his sermon and lost his life for a good dinner.

The only difference in favor of the minister is, that he violated physical law, partly, through ignorance. He did not *know* the danger of eating heartily either shortly after or before severe mental labor: nor did the well meaning sister know, that, instead of leading the poor man, when exhausted from the excitement and toil of preaching in a strange place, to a tempting dinner, she should have given him a quiet place in which to lie down and rest. Thousands of ministers break down prematurely from excessive or injudicious eating on Sunday. If there is afternoon service, the minister, unless he is a very strong man, should be allowed rest and quiet between times, and should take nothing unless it be a small piece of toast, a cracker or two, or something which but diverts the stomach without loading or tasking it in the least. Let it be remembered that *the stomach can digest food only as the brain supplies it with nerve force*, and that a severe task cannot be simultaneously put upon both brain and stomach, without great danger to health, if not even to life.

Take another case. An orator, distinguished in his own country, and known abroad, proposed visiting another country on a lecturing tour. His coming was announced, and a grand reception prepared for him. On the evening of his arrival, an immense audience from the best families of one of the chief cities of the nation, greeted him in a public hall. He, unfortunately, on that evening, was a little fatigued; and, being hungry, ate a hearty supper; and when his time came to respond to complimentary speeches, instead of being the clear-thinking, eloquent orator he usually was, he was dull, prosy and spiritless; all enthusiasm was quenched, and the meeting dispersed disappointed and almost disgusted. He never rose above this defeat during his

visit, and his lecturing tour was a failure, just because he attempted to make a speech when drowsy from fatigue and over-eating! Now, we blame an inebriate who makes himself unreliable; who unfits himself for useful work by indulgence in drink, and we blame him justly; but have we given sufficient attention to this *other* class of sinners; the sinners by careless and excessive eating? Is it less sinful to spoil a speech, or sermon, or editorial by eating, just for pleasure, than by drinking for pleasure? Is gluttony less a sin than drunkenness? Terrible as are the evils of drunkenness, I am not sure but those of gluttony exceed them, since more widely spread. I might give multitudes of cases similar to the above, had I space; of students who have failed in examination, and lawyers who have lost cases at the bar by over-eating. Of ministers who have failed in preaching from the same cause, of editors who have sent forth prosy papers, because too stupid, from excessive feeding, to write well; and of authors who have kept the printers waiting, because they must "do justice to Betty's dinner." And the troubles are not all comprised in an occasional failure; but the habit of excessive eating, once fixed, clings to a man, unless a special effort is made to shake it off, and dyspepsia, dropsies, rheumatisms, or consumptions are the results; and so the man is prematurely impaired, if not ruined, in health, and laid aside from labor when he should be in his prime.

Every man should eat enough; as much as, considering the work he has to do, he can digest and use; but, having eaten, he should give his stomach a chance; and when an unusual mental effort is to be performed, the stomach, meanwhile, should be lightly burdened.

SURGICAL OPERATION.—A Cincinnati gentleman writes to a local paper: "My youngest boy, three years old, playfully put a buting up his noze, and after tring to extract it with instruments, and faling, I then placed my finger on the child's Noze opist to the buting and my mouth to the mouth of the boy. I then blew in the mouth of the boy and the buting came out of his Noze."

EXPERIENCE IN WATER-CURE.

BY REV. DAVID THOMPSON.

AGREEABLY to your request made when I was at your publishing-house not long since, I will furnish the readers of THE SCIENCE OF HEALTH with some part of my experience in Hydropathy or Water-Cure.

The first time that I heard of water being employed as a remedial agent was, I think, in 1840. A young lady, a milliner by occupation, having a severe attack of catarrh, probably aggravated by inhaling fumes of sulphur employed in those days in whitening straw bonnets, I apprehended serious injury would be the result of using a wet compress around the neck, but to my surprise, it did her good. I had always been impressed that to get any part of the body wet, as by rain, etc., was highly dangerous to health; this impression is substantially correct; since the wetting of the whole or a part of the body by rain or otherwise usually abstracts a large amount of animal heat to evaporate it, and abstraction of heat from the surface of the body reduces the temperature of the surface, and diminishes the circulation of the blood there, and obstructs the elimination of effete matter there. The result of this obstruction is congestion of the lungs, liver, or some other organ.

In the skilful use of water as a remedial agent, the case is very different: no congestion, obstruction, or chills will occur. Such injurious consequences are obviated by adapting the temperature of the water to the condition of the patient, and applying the water at the right time of day, and using the requisite amount of clothing to keep the person comfortably warm. Let the person be warm enough in every part—and all the time, and no fear need be entertained about the effects of water, though it should be applied for a whole day. Overlooking, or not noticing these different conditions, under which water is applied to the body, is the principal, if not the sole cause of the prejudice which many have against the use of water in health or disease.

The result of the compress on the young lady referred to so far overcame my prepossessions, that I bought a small work on Water-cure in 1848.

For some years previous, I was threatened with a bronchial affection: the throat was frequently sore, and on examining the pharynx by means of a mirror, I could see numerous small ulcers. These I would frequently wet with a solution of nitrate of silver, applied with a camel's hair pencil. The spittle was considerably tinged with blood, and this produced alarm for the safety of the lungs. From a neighboring physician I borrowed Dr. George Morton's treatise on Tubercular Consumption, and Dr. Gherrard's work on the Diagnosis of the Diseases of the Chest. In addition to a careful reading of these works, I consulted several physicians; among these, I called on the author of the last-named work. He did not make any examination of my chest, but he expressed the opinion that, from my appearance, there was nothing seriously wrong in the lungs. But he advised me to employ the shower bath. On my return home to Washington County, Pa., I adopted cold bathing, and abundance of friction before going to bed. The result of this was a marked improvement in my general health. The ulceration of the throat disappeared.

In the Spring of 1837, I went up the North River from New York to Albany, on perhaps the first boat that ascended after the opening of navigation. A large number of passengers was aboard. Two of them on the deck commenced the discussion of the merits of Popery and Protestantism. A cold drizzling rain was falling, but as my attention was so fully enlisted in the controversy between the two passengers, I was insensible to the danger to which my health was exposed. On my going into the cabin, and applying to the clerk for a berth to sleep in, he informed me that they were all engaged. Late in the night, however, he informed me of one that was not occupied. To this I

betook myself, but then one part of me was almost scorched by the close proximity of a stove-pipe. On awakening, I was scarcely able to move from acute inflammation of the liver. With difficulty, I made my way to David Martin, M. D. He kindly applied a tartar emetic plaster. This was the commencement of a twelve years' drug treatment for liver complaint. It would be wearisome to me to relate, and to hydropaths to read, of all the remedies, external and internal, which I used under the direction of Allopathic physicians; but I must say that the means which they employed entirely failed in effecting the much desired cure. I blame the drugs which they administered for the cure of my liver, which induced chronic diarrhoea, hemorrhoids, rheumatism, etc.

The Associate Synod of North America, of which I was a member, was to meet in Albany, N. Y., in the latter part of May, 1850. I was very anxious to attend the meeting, but a recurrence of my old complaint, diarrhoea, incapacitated me from travelling. I then went to my library, and took out a treatise on Water-Cure, the title of which I have forgotten. I read the book, and commenced at home the practice of water-cure for my complaint which drugs had failed to cure, though astringent medicines would check it for a time. I used the wet sheet pack, the sitting bath, foot bath, general bath, abdominal compress, and a syringe, according to the directions in the book referred to. The result was in a short time most favorable. I thought it might be of good service for me to visit some Water-Cure establishment. At that time a small one was kept at Phillipsburgh opposite Beaver, on the Ohio river. I went to it and staid a short time; and stated my case to the proprietor, Dr. Acker. He treated me very courteously, though I informed him that I did not come so much as a patient, as I did for insight as to the best mode of treating my ailments at home. I informed him further that drinking water aggravated the diarrhoea. At this statement he expressed surprise, as he thought it should

afford relief. This effect of water drinking is, I think, satisfactorily accounted for by Dr. Straus, in a work on Water-Cure. He says that drugs, when taken into the system, are absorbed and assimilated with the circulating fluids, and lodged in different tissues; and that water-drinking penetrates them and carries them through the system, and thus the digestive organs become disturbed. This theory appears to me to be perfectly satisfactory; since I can now, and for twenty years past, drink any amount of water without any intestinal disturbance. The discontinuance of the drugs, and the free use of water, as already stated, by which the latent drugs were eliminated, has restored me to good health.

My dietetic habits were pretty good, having discontinued the use of tea and coffee in the Spring of 1835, and using as little pepper and salt as possible; viz., using none voluntarily, and generally rejecting food with which the former was mingled. To this determination I was brought by reading Halstead and Hitchcock's treatises on Dyspepsia, Sir Wilson Phillips' treatise on Indigestion, Johnson on Liver Complaint, and another work by an East Indian physician, whose name I cannot now recall, Andrew Combe on Dietetics and Digestion, etc. Intoxicating drinks I abandoned in 1824. The previous year, I came to this country from my native green Isle. My friends here told me that liquor was necessary to counteract the injurious effects of water. Supposing that they knew the correctness of the statement which they made, I complied with their friendly advice. But during the harvest of 1824, I read Trotter on Drunkenness. He was a Scotch surgeon in the British navy, and he dissected some seamen who died of intemperance, and gave an account of the effects of intoxicating drinks on body and mind, and on posterity, and gave also an account of alcoholic beverages in different countries and ages of the world; and the result of reading this book was to convince me that the use of such drinks were not only useless, but highly injurious. I then resolved that I never would taste

ardent spirits unless recommended as a medicine; and to that resolution I have sacredly adhered, though I have travelled very extensively, both by land and by water since that time. In 1853, I went overland with my family to Oregon, and returned by water in 1859, and we used neither liquor nor drugs in travelling about ten thousand miles; and were I to circumnavigate the globe, I would take neither. Let persons observe the well-established laws of Hygiene, and, aside from accidents, sickness is not likely to occur. It is true that if persons have broken-down constitutions, or have in-

herited disease from their parents, the observance of the laws referred to will not insure persons good health or long life. One word more in reference to temperance. In travelling in company with a great number of passengers on three steamships, I noticed that those who abstained from stimulants of every kind, were either entirely, or nearly exempt from sea-sickness. The observation and experience of one of my daughters, now a missionary in Egypt, confirms the correctness of my conclusion that violating the laws of hygiene is the predisposing cause of sea-sickness.

THE DEAF-MUTE SISTER; OR, PRE-NATAL INFLUENCE.

"MAMMA, my throat hurts!" A sweet childish face was lifted wistfully, and the little one's dove-eyes filled with tears.

Let me rock you, darling—mamma will kiss its throat, and make it well! But though the child nestled lovingly to the fond arms, she did not seem soothed, and presently put up a tiny hand to her forehead, saying in the same tone:

"My head mamma: Ellie's head aches!"

"Mamma will rub its precious head," and suiting the action to the word, rocking gently, and singing softly, the little one gradually fell into a feverish sleep. The mother laid her gently in her crib, and noticing the scarlet flush in the plump cheeks, and the stertorous breathing, watched anxiously beside her, till summoned away by some imperative household duty. Mrs. Forrester was the wife of a farmer, living in a mountain country; they were like their neighbors, generally good livered, though no large land owners. They had a snug cottage at the foot of "Cæsar's Head," a mountain peak, whose towering height and peculiar formation had given it its name. They were surrounded by fifty acres of their own land, half of it in woods, on the mountain side, grazed a hundred sheep of theirs, sheep whose wool furnished Mrs. Forrester with winter spinnings, besides the many pounds she sold, and a fine drove of

cattle, also of their rearing, browsed in the pastures, yielding them milk, butter and cheese, without stint. Mr. Forrester was that independent being, a patch farmer. From his twenty-five acres of arable land, he made wheat, rice, rye, oats, corn, buck-wheat, plenty for private use and a large surplus for sale; besides the produce of a peach and apple orchard. His wife was an efficient dairy-woman, and could, without assistance, hive a swarm of bees, take a gum of honey and cultivate her garden. She was handsome, of good mind and fair education, and thoroughly enjoyed her health-giving labors, which were not the less enjoyable from the spare moments she devoted to the Phrenological and Hygienic Publications of the day. She was the mother of two remarkably fine-looking and intelligent boys, who managed to keep up, by dint of home reading, under their mother's direction, the education, whose school opportunities were confined to the winter. One of them was fourteen, the other eleven, and little Ella, an exceedingly lovely child was six, the mother having made it a point to *nurse* each one for three years. She had, up to this time, been most unusually blest in their uninterrupted health, precocity and physical perfection. But alas, trouble insidiously enters the happiest homes, notwithstanding

standing all human precautions. The *aching head* and *painful throat* of little Ella were the premonitions of a severe attack of that scourge of childhood—Scarlet Fever. For days and nights the little one seemed to hover on the very confines of the “dark valley of the shadow of death”; but a fine constitution, built up and strengthened by a wholesome manner of living, and no previous drug poisoning, together with a loving mother’s devoted nursing, at length brought her safely through the spell. She had been singularly patient and *quiet* during her illness; and when she was convalescing, her mother several times remarked how *silent* the child had grown.

“Why dont mamma’s pet *talk to her babies*?” said she to Ella, as the latter sat *quietly* dressing and nursing her dolls. But Ella did not seem to hear her; and when she repeated her question several times with the same result, the mother’s heart stood still with a sudden vague alarm: she snatched up the beautiful brown-eyed child, and ran with her in her arms to the orchard, where her husband was pruning trees.

“Oh, husband!” she cried, see what’s the matter with Ella, I believe that fever’s made her deaf and dumb. “My God! I would rather she had died!” said the father, taking the little girl, and trying to attract her attention. He pointed to a bird’s nest in a little pear-tree; the lovely eyes smiled in intelligent appreciation. She would readily follow their signs, but to their uttered words the childish ears were henceforth deaf. Yet, vaguely the little one remembered the sweet old gift of speech she had lost, and with quivering lips often essayed to utter the once familiar word “mamma,”—all in vain. The treatment of several different Aurists but seemed more effectually to destroy her sense of hearing. Yet, as usual, nature, blessed patient reconstructionist that she is, made what compensation she could, by intensifying the other senses of the child she had made in a happy mood; and for all the birds had grown so strangely silent, and the mother’s voice hushed—a happier, more

beautiful sunny-tempered child could nowhere be found.

Yet the little one’s deprivation bore on the mother’s mind heavily; and, alas! with consequences far reaching into the future; for, when her third boy was born, six months after little Ella’s illness, it was a deaf-mute she brought into the world; more afflicted than the sister—for, deaf though she was to spoken words, the music of instruments somehow reached her bright spirit, perhaps as a far-off subdued murmur of the sea, or the half-heard revelations of dreams; but this boy, of perfect moulded limbs, and skin like whitest satin, had blue glassy eyes, which, beside the speaking, laughing, entreating brown eyes of Ella, looked soulless. Neither did he have his sister’s quick, intuitive moral sense, but would remorselessly strangle the young poultry, when he grew large enough, and exert his abounding vigor in the most strenuous resistance to any species of coercion, and at the same time uttering the loudest, shrillest, inarticulate shrieks, in a manner horrible to hear.

The deaf-mute sister was sent to an institution for the Deaf and Dumb, where she became thoroughly educated and accomplished, and was thereby enabled to secure a lucrative and honored position as instructress in a school of the same character.

VIRGINIA DE RANT COVINGTON.

STAGNANT WATER AND TYPHOID FEVER.—Out of one hundred and forty families supplied with milk from a dairy in Islington, England, seventy suffered from typhoid fever. One hundred and sixty-eight individual cases occurred within ten weeks, and thirty died. An investigation showed that the cows drank water from an old underground tank, built of wood, and much decayed. The milk cans were washed in the same water, and in all probability the water was also mixed with the milk. As the fever attacked only such parties in that district as used the milk, the water in the rotten tank must have been the cause. This is only one more evidence of the danger of using foul water, and giving it to animals. It has been shown that stagnant water acts as a slow poison to animals, as well as men, and it is a matter of the first importance to all dairymen and stock-raisers, as well as families, to use only pure fresh water.

THE CANCER-PLANT.

[HERE is a copy of the wicked swindling circular of an infamous quack who robs and poisons his poor victims. It is only the ignorant, credulous, and trusting who patronize these robbers. The villain appropriates the leaf of a plant or weed, and calls it a Cancer-Plant, of whose virtues he says :—

" This Plant is a never-failing cure for all Blood, Scrofulous, Cancerous, and Syphilitic Diseases.

It thoroughly neutralizes the specific virus in the blood, which causes the affection.

Therefore, it permanently cures all forms of Scaly, Scurfy, Blistery, Pimply, Ulcerative, and Fiery Cutaneous Eruptions, as—

Cancers, Nodes, Ulcers, Pustules, Pimples, Tetter, Fever-Sores, Secondary Syphilis, Ringworm, Eczema, Erysipelas, Scald-head, Leprosy, Barber's Itch, Impetigo, Scurvy, Prurigo, Salt-Rheum, Psoriasis, Copper-Colored Blotches, Glandular Swellings, Worms and Black Specks in the Flesh, Discolorations, or Marks on the Skin, Ulcers in the Throat, Mouth, and Nose, Sore Legs, and Sores of Every Conceivable Character.

This Plant is the deadly enemy of Mercury, Lead, and Arsenic—quickly eliminating them from the human system, and relieving the pains and aches attendant upon Mercurial and Syphilitic poisoning.

From a familiar knowledge of the composition of every Blood Medicine ever placed before the people, we warrant our Comp. F. E. of C. Pl. to be the most powerful Alterative ever originated by man.

" The Tree was made for the healing of the Nations."

Hear this profane wretch further on :—

" In truth, it seems that God, in His infinite wisdom, has designed this Herb, above all others, for the cure of that vast list of Maladies arising from impurity of the blood.

We have given the Cancer-Plant to poor creatures who had suffered for years with the most frightful forms of Scrofula, Cancer, and Syphilis, and within a few days the hideous sores have healed, the Cancerous masses have withered away, and the skin has assumed a healthful appearance.

Few people know the ecstasy of health, the clearness of the mental faculties, and the wonderful tonicity arising from a pure state of the blood, when, unclogged with humors, it flows freely and limpidly through the channels which God has created.

Under the influence of this Medicine, the Eye grows clear and sparkling—the complexion becomes like pearl ; unsightly blotches, pock-marks,

worms in the flesh, pimples, rashes, and roughness of the skin disappear, and the entire human organization grows redolent with Health.

Said the celebrated Dr. Beach : ' Whatever will cure a Cancer, will cure every other form of Blood-disease.'

In Cancers this Plant is most sovereign. We doubt if any other medicine has ever cured so many Cancers and Tumors. We have ample testimony on this point.

Dr. Ogden says : ' Twelve ounces of this Plant will make the blood of an adult as pure as an infant's.'

Dr. Husted states, that, with six bottles of our preparation, he cured a man in the Institutions at Blackwell's Island, of Syphilis after the disease had eaten a huge hole through the cheek.

Dr. Henderson, of California, pronounces it a ' grand Alterative.'

Professor Vanderpoel, of this city, has made many remarkable cures with it.

Dr. Freeman, of New York, increased his practice in two years, by its successful use, from \$10,000 to \$30,000 per annum.

Drs. Wright, Draper, and Wales, of New York ; Drs. Warren and Pollock, of Boston ; Drs. Zabriskie and Zell, of Philadelphia, Drs. Jones and Dwell, of St. Louis ; and hundreds upon hundreds of physicians of all schools, use it extensively in private practice.

The entire Plant is medicinal, yielding by expression a dark-greenish liquor of pungent odor, which leaves an acrid, but not unpleasant, bitter taste in the mouth and fauces.

The Cancer-Plant is perfectly harmless to the most delicate child or lady ; but in one instance, where a patient took four ounces of our Fluid Extract in a single dose, it caused excessive emesis.

An old lady residing in Philadelphia, affected with Lupus non Exedens, has taken over One Hundred Bottles of our Extract without any unpleasant symptoms, but with the most wonderful curative result.

Favorable arrangements will be made with physicians wishing to introduce our preparations into their practice."

The fellow, who puts forth the above, was arrested not long ago in New York, but managed to escape the penitentiary ; it may be through bribery. He is still in full practice, right under the noses of police, medical colleges, and a thousand or more regular physicians. There may be no law against this sort of swindling ; our duty is to teach the people *not* to be swindled.]

OBEDIENCE AND HEALTH.

BY ELIZABETH DUDLEY.

PERFECT obedience to natural law is the only means of ensuring perfect health; and, an adult whose brain is fully developed, whose reasoning powers are mature, is inexcusable if he, (or she,) does not render intelligent and implicit obedience to the laws of Nature.

A child, on the contrary, is not only immature physically and mentally, but he is also inexperienced; he does not know the consequences of disobedience. If now, his parent governs him in strict accordance to natural laws, and compels obedience only to those laws, it will not be difficult to establish regular habits of deference to parental authority.

The exercise of parental authority or government is necessary to the well-being of a child, because he is too ignorant and inexperienced to govern himself. But his well-being is not secured when the laws of parental authority conflict with the laws of Nature. This occurs more frequently than most of us would believe. I fear that a living parent cannot be found who has never at any time, treated his child (or hers) with tyranny, and compelled it to obey an unjust decree. As for the vast majority of parents.—their laws are for the most part unreasonably arbitrary, and dictated by thoughtless selfishness.

Not only do they weaken in the child, as soon as his reason begins to act, the filial obedience which he would naturally render; but they also seriously affect his health, and subsequently his morality; for want of health, especially in children, predisposes to immoral conduct.

Teaching Children to Disobey.

For instance, a mother is very anxious to set about some piece of work, which she cannot well begin until her infant child is asleep, taking its morning nap. Hitherto she has been guided by the laws of nature in giving nourishment at regular intervals, and in letting the babe sleep when inclined to do so, and wake when it has rested long enough.

But now she is in haste to "get the little hindering thing out of the way," and she anticipates the time of its bath by an hour. Afterward, instead of dandling it about and giving necessary exercise after bathing, and then letting it rest awhile before eating, she feeds it at once, and urges, even forces it to take as much as possible, "that it may sleep the longer."

Finally, since the baby's regular time for napping will not come for an hour, she places it in a cradle, and, by rocking and singing, hushes it into an unnatural slumber. Generally she prolongs this by jogging the cradle and singing softly, when the baby having slept enough, begins to stir as if ready to awake.

The Mother makes the Baby Cry.

At last the little one cannot sleep longer, and insists on being taken up. It now is weary and languid from unnaturally prolonged slumber; it is stupid from congestion of the brain; or it suffers pain from undigested food, (having slept too soon after eating). It frets and cries, and the mother offers nourishment, which pacifies the child a short time, but soon creates acidity, flatulence and colic. The baby cries again; the mother tries to soothe it; with increasing uneasiness and pain, its screams increase. The mother detects an accent of rage in its outcries, and fancies the time has come to enforce her authority; she tells the child to "hush!"

It cannot and will not hush until it has no cause for screaming; Nature teaches it to scream when in pain, that it may get relief. But the mother has been taught "to regard the government of children, not as one among many important matters, but as the most important item in the range of domestic economy, and as extending its influence over the whole." * * * * * The point to be gained is submission to the parents, and without any other reason than this—that it is the PARENT who speaks. * * * * Such is the salutary influence of this incipient train-

ing upon the embryo passions and intellect, that, as soon as the impression is fully made, the tender plant will bend before it. The *resistance inherent in corrupt human nature*, thus far encountered, has been overcome.

The "Sinful" Baby cries from Pain.

Poor little martyr! The mother's anger, too often real as well as apparent, now being added to its physical suffering, is more than the "tender plant" can bear. In an agony of pain and terror, and rage, too, at being so inhumanly treated—it screams until the household and the entire neighborhood is aroused.

People come running in to the scene of torture; (where it will be difficult to discover who suffers most—the chief executioner or her tiny victim!) and at last comes a woman who has eyes in her head, and who at once perceives that the baby is "sick."

Now the doctor is frantically summoned; and, when he arrives, the baby, from Herculean exertion of his apparently superhuman lung power, having become purple in the face, with head burning hot and body alternately contorted with pain, and stiffened with fury because of his diabolical torture—the learned physician at once pronounces this to be "a finely developed case of CONVULSIONES ET ECLAMPSIA INFANTUM!"

Every one is aghast. The mother nearly faints with terror. But the doctor's practice is much less alarming than his scientific knowledge; and the prompt administration of a warm bath with gentle friction, to be followed by a sugar-pill every morning precisely at seven, with four hours of outdoor exercise daily—really, dear madam, we must insist upon that!—saves the life of the little sufferer!

What has the Baby Gained?

He has gained the battle! Brave little hero! He fought a hard fight and won a glorious victory! He has learned the power of his will; the inexhaustible force of his lungs; the advantages of perseverance when he has a point to gain—he has learned to cry for what he wants!

Will his mother ever again bid him "hush!" Will he obey her? Will she be his slave—or will she become his tyrant? She has no alternative: at least for a time.

Look at the darling as he sits playing, fully recovered, though weak from unnatural exertion, in the warm bath that the wise doctor ordered! How happy he is, how beautiful his perfectly-formed, satiny body! The doctor looks at him with a self-reproachful smile for the hard words he had pronounced upon the unconscious innocent; but solaces his conscience by reflecting:—

"Well, he *would have had* Eclampsia, etc., if his fool of a mother had known that nothing ailed him but colic, and a natural desire to be relieved of pain! Now I have saved him months—yes! years of suffering! I have probably saved his life! Well, I must send them in a big bill; for "Convulsiones et Eclampsia Infantum" is not a disease to be treated for nothing! And, beside that, my reputation—Good morning, my dear madam! If the child should be ill again send for me without one moment's delay! Good morning!"

Do not Laugh at This.

The above picture, though necessarily greatly condensed, has been drawn from real life. Let no mother smile at it—though others may laugh! Let her shudder to remember her own shortcomings towards her child; her thoughtless attempts to enforce perfect obedience to her own will—even when she was acting in defiance of the laws of Nature.

MRS. MARGARET HOWE, a market woman, aged fifty-six years, went to bed in Pittsburgh on Wednesday night with a lighted pipe of tobacco in her mouth. She fell asleep and the bedclothes taking fire she was so severely burned as to cause her death yesterday.

[We suppose smoking was prescribed by a physician.]

ONE BUSINESS NECESSARY TO COMPLETE THE BLOCK.—In Shimer's block on Clark Street, there is in one end a gin mill, the other, an undertaker's establishment. It is suggested that in order to complete the row and make business good, an apothecary shop should be located between them.—*Auburn Democrat.*

DISEASE AND ITS TREATMENT.—No. 7.

BY ROBERT WALTER, M.D.

Objections Answered—What admitted facts Prove.

If disease then is remedial effort, why do not sick people get well? We repeat the answer, and shall undertake to sustain it by indubitable facts.

Sick people do get well in all cases except two; first, where the causes of disease are maintained in operation beyond the possibility of recovery; and second, where the remedial effort is stopped by the use of powerful drugs that prostrate the vital powers, and so render ineffectual their efforts toward restoration.

It will readily be seen that these two exceptions, if they exist, offer ample justification for any failure on the part of the patient to recover; and if the facts show that sick people do recover where these two exceptives are not found, our answer pretty conclusively establishes the soundness of our theory. We can hardly expect a man to regain health while the causes of disease are still operating on him. Vitality though powerfully and indistinctly self-preservative, cannot be relied upon to maintain itself against all destroyers. The manifestations of the disease may change, and often do; indeed, the disease may be cured as it were, or changed from acute to chronic as often happens, but the patient seldom fully recovers while the causes remain.

Nor can we expect disease to accomplish its object if it is stopped by powerful medication. *Vis medicatrix naturæ* will certainly fail if forced from its legitimate channels by medicaments that are inimical to life and health. And the more powerful the poison, the more reliable the medicine, and the surer the disease will be cured or stopped, as we will show hereafter.

To determine, then, whether or not disease is remedial effort, the first thing to be done is to find cases in which the causes of disease are removed or are

certainly removable, and in which no drugs or other poisons are employed to thwart nature's designs. If in such cases men get well, we have the best of reasons for believing that disease is curative.

How Wounds are Healed.

Wounds furnish the needed illustration, because in the majority of cases they are curable, and are not now usually medicated. Once they were; and their healing was moderately credited to the "healing plasters" employed, but at length medical men recognize the fact that the vitality in the organism is the only agent of cure; plasters being at best, useful as a sort of artificial skin to keep the wound clean and from the air. It took us a long time to reach this point. First we were compelled to acknowledge that nature heals, but we still clung to the idea that salves were necessary auxiliaries to her; finally we are willing to admit, as a generous concession to inexorable fact, that a wet or dry bandage or raw cotton or dry earth is all that is useful or necessary.

Wounds it is true are not diseases; but the action of the living system consequent upon them is disease, showing itself in pain, inflammation, feverishness, and other evidences of vital disturbance. In other words, the wound is the proximate cause of the disease; the pain, inflammation, etc., are the symptoms of the disease, and the action of the system resulting from the wound and causing the symptoms, is the disease itself.

That wounds are not diseases, but are the proximate causes of disease, is readily shown by the fact that like other proximate causes, they may exist without any symptoms of disease, but *healing* never takes place without them to some extent. "It is only by inflammation that a wound is healed or a broken bone repaired" say medical books; clearly indi-

cating that though the wound may exist without the disease, the healing process cannot. Most persons are acquainted with the term "indolent ulcer," which means simply an ulcer that is not painful at its surface, nor accompanied with other vital disturbance, and will not heal till it takes on the acute or suffering stage, to induce which surgeons often burn it with caustic.

So well is it known that inflammation is symptomatic of healing that physicians frequently superinduce it by mechanical appliances, as in cases of rupture, or by caustics as in ulcerations, fistulous openings, etc.

Inflammation is painful because it is a curative effort, while mortification is painless because all effort at restoration has ceased in the part. Medical books say that "the mortified part is called a slough, and it is separated from the living parts by a peculiar vital process called ulceration." This ulceration like other curative processes, let it be remembered, is always painful.

Every one knows that a frozen part is painless until the circulation in it begins to be restored, and it commences to heal. Until this happens there will be little vital disturbance nor any symptoms of disease, but when recovery commences, the pain often becomes intense; and if the damage be severe, the disturbance in all the vital processes is frequently alarming. While the damage is being done in this or any other case of disease, the person may be entirely unconscious of anything wrong, but let him remove the remote cause, and allow vitality to come to the rescue and symptoms of disease of the most severe kind will be developed.

A person may strain his muscles or bruise his flesh seriously, and yet not consciously suffer for many hours thereafter; but when he gets rested, and vitality begins to repair damages, his muscles will become lame and painful.

When a person first meets with a serious accident, there will be little or no pain or vital disturbance manifested, until he has so far recovered from the

shock that vitality begins to recognize the new condition and provide accordingly; but then acute disease, showing itself in quickened circulation, feverishness, great suffering, and vital disturbance, exhibits itself. So true is this, that no physician would be foolish enough to amputate a limb until the patient had become a conscious sufferer, because until he had recovered from the blow, vitality is so obstructed that the self-preservative processes cannot operate with sufficient freedom to warrant a recurrent shock. Medical books tell us that all large wounds that followed by sympathetic fever which comes on from sixteen to thirty-six hours after the accident. It will be found, too, that the more vigorously the remedial effort, the sooner the fever will begin.

Thus, we see that a wound or other injury cannot of itself, produce pain or other evidence of disease; while on the contrary, it is just as plain that curative operations cannot take place in any case without the symptoms of disease to some extent; and in serious cases without serious symptoms. A slight wound may develop very slight symptoms; but let a man get his leg crushed, and the symptoms, after he begins to recover, will be fearful. The force of the disease will ever be found to be in exact ratio to the force employed in the effort toward cure. Physicians are so well acquainted with these facts with regard to wounds, that pain in them is considered a cheering symptom, indicative of healing, and vital disturbance, therefore perfectly natural. Why can't they see for the same good reasons that physical suffering, no matter what the cause, is simply evidence of curative operations; and therefore not to be thwarted. We repeat the oft made statement, that *there can be no disease where there is nothing to be remedied, and no appreciable remedy can take place without disease.*

The invalid who, having violated the laws of his organism, has brought upon himself serious injuries, suffering intensely while nature struggles to restore him; but by and by, wearied and exhausted,

she gives up the contest, and the patient feels easier, brighter; thinks, perhaps, he is about well, when suddenly he collapses and dies. While the struggle for existence—the disease—was active, he suffered much; when it began to cease he felt better, but very soon died. This fact, at least, is well-known; that just before death the patient often rallies, speaks rationally, recognizes friends; which can be explained only on the ground that the disease was salutary.

In dislocations, the ligaments and muscles are usually torn and often decompose; but the matter being absorbed, is replaced by new and healthy tissue; and the joint, when properly set, becomes as good as ever. No medicines contribute to this end; but symptoms of disease, pain, inflammation, fever, restlessness, disturbance of digestion, respiration and circulation, etc., always show themselves, leaving us clearly to infer that while the healing process has no connection with medicines, it always has with disease; and closely studied, it will be seen that the disease is the healing process.

A broken bone is healed only through the medium of inflammatory action.

The first thing done after the parts are replaced is the throwing out of the lymph or fibrine from the blood, which glues them together and forms a ring or hoop around the fracture, called a "provisional callus." This hoop remains for the purpose of keeping the parts in exact position until they are healed, after which it gradually disappears. If for any reason inflammation should not be present in the fracture, the lymph will not be thrown out, and therefore no healing can take place.

We would again guard our readers against confounding the disease with its symptoms. The disease itself, we have shown, is the curative process; but we would not be understood as claiming that pain, inflammation, fever, vital excitement, etc., are curative. All we claim of these symptoms, is that they are the evidences of curative operations, and that though we might be ever so desirous of avoiding the symptoms, we can only do so by stopping the curative process. While the injury remains and the effort is being put forth to remedy it, we must suffer the pain. If we would escape this, we must either never get injured, or being injured, prevent any attempt at cure.

NATURE VS. CIVILIZATION.

"THE Hermit of Petzell" is the title of a "day-dream" or Hygienic Romance, by Mr. James P. Irwin, of Charlotte, N. C., intended to illustrate the advantages of a life more in accordance with the laws of life, than can be found in the artificial habits and fashionable resorts of our country, for the benefit of invalids who are in the pursuit of health under difficulties. Though somewhat high-colored, it indicates, in an entertaining manner, many important principles, which we shall lay before our readers from time to time. The following remarks on artificial heat and polygamous marriages are somewhat novel, yet highly interesting:—

"No one can be sad or gloomy who lives with Nature and with Nature's God. It is only in the close rooms, and amidst

the noxious exhalations of civilized life, that man yields himself a prey to gloom and melancholy. I thought in my youth that I was dying of a broken heart, and so I was, I suppose"—and here an expression of keen suffering passed as swiftly as lightning over his face, and was as quickly gone,—“but oxygen is a specific for heart break. You spoke this morning of the great pleasure afforded you by observing the gradual changes from day to night, and night to day. You do not enjoy this pleasure merely because you have been debarred from it hitherto, but because your tired nerves are relieved of the excitement produced by artificial light. Formerly, evening brought no pleasure, because, just at the time when your feeble frame required darkness and rest, you were placed in

the unhealthful glare of artificial lamps. And when morning came with its dewy freshness, you were asleep in a darkened room, from which you emerged for your morning drive, into the sudden full light of a ten-o'clock sun; and this was another shock to your nerves. All sudden changes, from light to darkness and vice versa are injurious. Nature's changes are all gradual. The light and warmth of the sun are exactly suited to our needs, but men perversely prefer the light of oil and gas, and the warmth of wood or coal."

"The light and warmth of the sun are not sufficient in winter—at least, not in cold countries," I replied.

"Warmth is a comparative term," he said. "Dr. Kane tells us that the crew of the *Advance*, in the Grinnell expedition, complained in March that it was 'too warm to skate,' although the thermometer indicated a temperature of 10 degrees below the freezing point. When the thermometer had been 20 degrees below the freezing point, they were still without fire in the cabin of their ship. Wherever men can live at all, they can live without artificial heat." *

"I suppose it is great ignorance on my part, but I really have never dreamed of the possibility of people existing at Reikiavik or St. Petersburg without artificial heat."

"Have you felt the cold more during the fortnight you have been with me than before?" he asked.

"No; how could I, lying upon these cloud-like cushions, and covered with these delicate fabrics which it would seem profanation to call blankets."

"We call them blankets, nevertheless," said he, smiling. "So you see, that even for the most delicate invalids, such as you, fire is not indispensable. In fact, you are more comfortable without it. The habit of depending entirely upon artificial heat for comfort in Winter, is a suicidal one. The people of the civilized

world barricade the dreaded King Cold out of their houses, and worship their fires and furnaces like very Parsees, but they cannot always remain within their forts. The enemy acquires strength only as they themselves lose it. Meet it bravely and you are victors; fly before it and you are lost. The only safety, as well as physical comfort, is in fight, not flight. In order to convince men of the uselessness of artificial heat, God forbade the use of fires for one day out of every seven. Finding they could do without it for one day, would convince them that they could do without it altogether. Yet this divine law, like many others, seems to be quite forgotten."

"Pandora's box of evils was sent as a punishment for the introduction of fire on the earth," said I; "and if I understand your theory, these evils were simply the evils naturally resulting from the use of fire."

"Just so," he replied; "and they are gigantic evils. The mythic story of Prometheus and Pandora taught important truths—three of the greatest evils in this famous box are: artificial food, artificial heat, and artificial light. Food, which can only be rendered palatable by the action of fire, is necessarily an unnatural food. Those foods which are attractive to the senses, taste, sight, smell and touch, are natural foods. The heat of the sun is a natural heat; the light of the sun and other heavenly bodies is a natural light. All others are injurious. Men pine for oxygen; fire destroys it,—the sun, through the agency of vegetation, produces it. The fragile, highly cultivated woman, who sits in her furnace-heated, carpeted and curtained mansion, reads with feelings of horror of those savages so sunk in degradation as to be unacquainted even with the use of fire. She would be amazed, if told that, in one respect at least, they are immeasurably her superiors. They understand and appreciate the light and warmth of God's glorious sun, for all the practical purposes of life; she does not. Some of them believe that the sun represents God;—fire, the devil. Has she no belief

* The Duke of Argyle, in his "Primeval Man," tells us that the Esquimaux will sit for hours, watching the blow-hole of a seal, in a temperature of 70 degrees below zero!

more erroneous? Through those furnace-heated, carpeted and curtained rooms, whose walls are lined with book-shelves and pictures, often creep the dark infidelities of Compte and others, as poisonous to the mind and heart, as the confined air, filled with carbonic acid, is to the body. The lady looks with complacency at the thick, soft carpet under her feet, and at the frescoed walls and damask curtains around her, although her knowledge of chemistry convinces her that they are absorbents for every floating poison. (It is not even necessary for her to have a knowledge of chemistry to be convinced of these things. Florence Nightingale's book places before the eyes of even the most unlearned, a catalogue of the seen and unseen horrors of the homes of England, which are admitted to be the most perfect homes in the civilized world.) The same lady will expatiate with enthusiasm upon the harmony of colors, and outlines, and shadings, and groupings in frescoes, and pictures, and carpets, and curtains, forgetting in her folly that the most perfect work of art is but a poor, weak imitation of some work of God. Yet the successful artist is almost deified, whilst the true God is almost forgotten. Her carpets may be very thick and soft, but the delicate human foot still feels the hard wooden or marble floor underneath; so, even as a luxury, this springy, elastic turf of mine is superior. It may be exquisitely colored, but no human art can make anything so beautiful as this flower-gemmed sod of mine. Its look of cleanliness and purity is but treachery, for it stores up poisons to deal them out at leisure. Mine also absorbs poisons, but only to destroy them, or rather to feed upon them and give in exchange salubrity. So you see, my dear Harry, that even in carpet-making, man cannot compete with his Maker. Then," he added, scornfully, "to shut themselves in with their pitiful fresco landscapes, when they might, with infinitely less trouble, surround themselves with glorious, God-painted landscapes, like this."

"And is there nothing," I asked—"not

one single thing in civilized life that you approve of?"

"Ah yes," said he, while a radiant light gleamed in his fine eyes; "there are some things in civilized life which are very beautiful. Your mother's love for you, for instance, and the love of husbands and wives. The hardest and saddest life becomes beautified and ennobled by love. It creeps like the beautiful ivy over the gaps and fissures and rents of ruin, clothing even the dead and useless building with grace and loveliness. And as love is the greatest treasure and most precious blessing possessed by the human race, so its abuse and destruction is the greatest crime of which men can be capable. The man who places upon the innocent brow of his own child the ineffaceable brand of illegitimacy, and who refuses the name and privileges of 'wife' to the woman who gives herself to him, is a wretch more degraded than any brute, and compared with whom a murderer is a respectable character. Yet this abhorrent wrong is permitted by the civilized governments of the earth. Not so in the Bible republic, with its perfect laws. The whole Mosaic code is perfect, for it was written by God; but the most beautiful portions of it, are those which are made for the purpose of guarding the purity and happiness of the *helpless* members of society, the *women and children*, who appeal to every feeling of tenderness in the human heart. A daughter of Israel must be pure, or *she must die*. No illegitimate child was born in the Hebrew state."

"But did not the Hebrew laws permit polygamy?" I asked, timidly, for these subjects had never come into conversation in my limited experience.

"Polygamy was expressly *forbidden* by the Hebrew laws, thus: 'Thou shalt not add one woman to another.' Our translators have chosen to render the word 'sister,' but it means simply woman. Polygamy, however, was not punished, except by exclusion from all office, and the law even required the polygamist to provide for and treat his wives with impartiality. The evil was done

and it could not be repaired; but the polygamist placed himself, by this disobedience to God's command, outside of the pale of that body of 'good and true men, men who feared God and hated covetousness,' and from only whom office-bearers could be chosen. Repentance may secure pardon from God for even the murderer, but God gives the state or civil government *no right to pardon*. Every seducer was compelled to become the husband of his victim, even if he were already married. Men can never improve upon these laws—they are the laws of Nature and of Nature's God. No government is a Christian government—I will not use the much-abused term, civilized;—but no government can be called Christian which does not guard the purity of its women and the interests and well-being of its little children. The statistics of the great cities of Christendom annually place upon record the thousands of prostitutes who throng their streets, and who, worse than the fabled *ghoul*, feed upon human life—life physical, and life spiritual. Each one of these lost creatures, who spend their time in enticing others to ruin, might have been saved from this horrible fate by the strong arm of the law. How, do you ask? By doing away with the fiendish custom of allowing any citizen to provide himself with the physical indulgence of love, and at the same time to cast off the responsibilities and duties of husband and father. The cannibal only devours bodies; this monster devours souls. He has no human tenderness, no human rectitude, no human decency, and by the Hebrew law, he was forced to repair the wrongs he inflicted or to suffer the penalty of death. Every human instinct pleads for the rights of one's own children, and when men become dead to every human instinct, they are like cancers on the body politic: incurable, spreading disease and death around them; and there is no remedy but excision by the knife—death. Carry out the Hebrew law, and there would be no prostitutes—I shudder as I pronounce the word;—and polygamists would be

placed in the lowest ranks of society, by exclusion from office, and this was a much heavier punishment than would appear at first glance. In the Hebrew government, where every tenth man was an office-holder, it would be a lasting disgrace. Of all human wrongs, the wrongs to helpless women and children, by the men whom Nature designed to be their protectors from want, crime and disgrace, are the saddest, the most soul-harrowing."

THE MODERN INQUISITION.

No one reads without a becoming thrill of horror of the tortures inflicted in the Inquisitions of the past. Human ingenuity was stretched to the utmost to devise means of inflicting the most exquisite pangs and still preserve life. But what we blush most at was that the system was justified; and Society, even religion, brought to look upon it as a necessity.

In these modern days we find that an Inquisition has also been erected. Its victims are moving in our midst and the chief Inquisitor an honored person. The old Inquisition was a custom of the time, so is the modern. Fashion is the name given to the present temple of torture, and women are the chief victims. The boot was an ingenious instrument of pain, in which the foot was squeezed by torturing wedge and band; but it had one merit—it was rarely applied, and the pangs were comparatively temporary in their duration; but now-a-days we find few of our sisters who are not undergoing the same punishment, not occasionally, but permanently, commenced when the victim is yet a child, and continued into old age. Fashion insists that our women shall wear their boots two sizes too small for them, so the foot is jammed into the leather torture, and the sufferer compelled to walk, to perform the usual household duties, and even take her pleasure with this instrument, inflicting agonies upon the nerves of the pedal extremities. The heel of the boot, to add to the pain, is made high, and placed

nearly under the centre of the foot, so that the weight of the body is thrown upon the toes, which are forced together, while the ankles become weakened, and the muscles of the calves of the legs ache with the unnatural strain. There is no relief. From eight years of age to eighty, this cruel vise is applied, and the victim required to smile and declare that she experiences no pain!

Another device for producing pain is placing upon the head a quantity of pads and false hair, which, by their weight and the heat they produce, cause continual headaches. The system of hanging the heavy weight of petticoats, crinoline and dress from the waist, causing a pressure upon the delicate organs of the stomach and producing unwholesome heat, while the extremities are lightly clad in thin stockings and exposed to draughts, is not without its value as a means of destroying health and producing pain; and even the simple plan of tying ligatures round the legs until the veins swell and become varicose is not to be passed without some notice. But the most fiendish torture which the High Inquisitor Fashion reserves for his victims, is the corset!

Imagine an ingeniously constructed machine of silk, cotton or other strong material, stiffened and strengthened with ribs of whalebone and flat blades of steel, in which the body is crushed by degrees, by which the ribs are displaced, by which the organs of the abdomen are forced down into the pelvis, and the organs of the chest jammed up into the throat, by which the breathing capacity of the lungs is lessened, and the digestive powers of the organs of the stomach are impaired, and by which the general vitality of the system is lowered. Imagine all these, and you have some idea of the terrible instrument called a corset. It is applied early; and the little girl, before she has left the nursery, is fastened in this fashionable vise, which she is condemned to wear, day by day, until the latest hour of her existence. As she grows older, instead of receiving greater freedom, the instrument is fastened

tighter and the waist made smaller. Does she desire exercise, this figure-screw produces lassitude, and she wearies; does she go to a party, an extra degree of tightness has to be submitted to; so that, after each dance, it is painful to see her chest heaving up and down, up and down, with the exertion of the upper half of her crippled lungs trying to supply oxygen to her system; is it a fashionable dinner, "grace" before meat is insisted upon, and she picks about as much food as would satisfy a healthy sparrow, and keeps up a false appearance of vitality in her system with an extra dose of wine. Begun in the nursery, followed up in the boarding-school, the corset is continued through life, till death frees the victim from her pangs!

Through all this torture woman must make no groan. The agony may be severe, but no cry must pass her lips. Her life one torment, she must never confess it, but while bruised and squeezed and worried, she must smile and be agreeable! Surely woman would be a noble martyr if the cause were nobler; and Fashion is a cruel Inquisitor, whose tortures are commenced so early and continued so unrelentlessly through the entire life of her victims!

THE DOCTORS AND MALT LIQUORS.

THE doctors of the old school have almost, without exception, always aided the rum sellers by their public utterances and private practices. Comparatively few have seen their duty to be that of preservers of health, and, consequently, promote the closing of the dram-shops and the prevention of the sale of liquors by that aid of death, the apothecary's-shop. There can be no reasonable doubt that our apothecary-shops—here in mass—are in very many cases but liquor-shops; and yet when the question of closing the dram-shops is argued in our legislatures, this enemy of good has its friends, who always see that the people are hoodwinked sufficiently to allow the sale of liquors from this class of rum-shops. Some years

ago, we heard an apothecary, “very respectable,” as the phrase is, declare his conviction that the sale was proper; and at that very time we could have given him the names of several men who went regularly to his shop for “their bitters,” medicinal, of course!

The question of repealing the clause of our liquor law, which allowed the towns to regulate the sale of beer by vote, came up before a committee of our legislature the past winter, and a long hearing gave an opportunity to the friends and opponents of the measure of presenting their facts and deductions. Our temperance friends made out a very strong case (they could not do otherwise, having the truth on their side); the favorers of the beer clause produced “learned gentlemen of the medical faculty,” “representatives of Harvard,” and, in this latitude, what a Harvard professor does not know, is not to be known. The muddle into which they fell, was that same trap which has proved so fatal to the people by reason of the ignorance of the old school, “that stimulation was strength.” To the average man in search of health who has not lost his eyesight, a short walk would teach a conclusive lesson that stimulation leads one rapidly to degradation; and that the examples of the benefits of stimulation are so few, and verge so near to the physical and mental ruin of the stimulated one, that it is impossible to derive but one argument from the facts. We will quote for the benefit of your readers the fermented wisdom of Harvard.

Dr. H. P. Bowditch, lecturer on Physiology, “thought an increased use advantageous, and approves its use when the system is run down.”

Dr. Charles E. Buckingham “has practiced twenty-five years; has considered the effect of malt liquors; rarely has known a man injured by a moderate use of them. Frequently prescribes as a general stimulant to the nervous system, or to the opposite, or as an article of food and did not know it contained food; persons who discontinue liquors and take beer do well, those who do not discontinue go to opium. Beer *boosts* patients

who are past the crisis of a disease and cannot eat; when they cease to need it, they get tired of it, if not habituated to alcoholic beverages, and these make the doctor the scapegoat. With the drain on the nervous system, now common, recommends beer. Before beer became common prescribed rum-punch; thought the beer-shops not a disadvantage; had never helped the temperance move against the rum-shops.”

Dr. John P. Reynolds gave his opinion “that persons who over-work should take it regularly at their meals; young children are often benefited by minute quantities of alcohol; thought the suppression of beer would be an injury to Boston, but if the entire prohibition were possible, it would be a blessing; wanted to change our drinking habits for those of Southern Germany; there is no safety for a toper except in entire abstinence; most persons should not exceed two glasses a day.”

Several other of the learned M.D.’s were to have been present and testify, but they found it convenient not to. It must be remembered that these physicians, who are good representatives of the old school, appeared before this committee at the instance of the *Brewer’s Association*. We make no comment on the twaddle that these poor creatures offered; for their own words condemn them more severely than anything we can say.

D.

“POISON IN EVERYTHING.”

There is, perhaps, no better illustration of the lack of popular acquaintance with vital physiological truths, than the oft reiterated remark that there is “poison in everything.” We frequently hear this from persons of some intelligence in other matters, and it is one of the greatest hindrances to their reception of truths, which are of great practical importance. Tell them that certain things are not fit to eat or to drink, because they are poisonous, and they immediately reply that there is poison in everything, and your arguments will have no weight with them. Now, if

there is poison in everything, what becomes of the distinction between "poisons" and "wholesome." Is anything wholesome? and how can it be if there is poison in it? This involves a contradiction in terms.

If there is anything in the world that is wholesome, wheat is. It is even called a perfect food. But if you say so directly, you will be met with the assertion that there is poison in wheat, and the attempt will be made to prove it. How? By turning it into a poison; and when they have done that, your opponents think their assertion triumphantly proven. That shows that their difficulty lies in the lack of a proper understanding of chemical action. They do not know that it is a characteristic of that action to change the nature of things. We cannot judge from the effect that any article has upon us now, what effect it would have after chemical action had picked it to pieces and made it into something else.

For example, by chemical action, starch can be changed into sugar, but in doing this, it makes another thing of it. We talk about starch and sugar being largely composed of carbon, but that only means that chemical action can change them into carbon. The latter, however, is quite different from either of the former, as we should very soon find, if we undertook to eat it; for the purest specimens of carbon that we know are charcoal and diamonds.

Again, when we say that alcohol is a poison, and that therefore we should not take it, we are often met with the reply, there is poison in everything. We deny it; we challenge them to prove it; for the burden of proof lies with them, not with us; and we shall, by no means, accept as proof their picking it to pieces and making something else of it, by chemical action. The chemical action of decay upon sugar under certain conditions, and in a liquid form, where the particles of matter, set free, are at liberty to move around and follow new affinities, produces an article quite different from sugar and that is alcohol. In this way, alcohol practically always takes its origin. It is not in the grain, nor in the starch,

nor in the sugar. It is not even in fruit juices, though it can be made from them or rather from the sugar, in them, in the same way, by the chemical action of decay, commonly called fermentation.

True, they tell us that the fermentation is "controlled," but for what purpose? Merely to secure the largest possible proportion of alcohol, and to preserve it as long as possible; for, if left to the continued action of decay, it would soon break up into vinegar, and that in turn into water and dirty sediment, and then the decay would be complete. Now, as alcohol is very different in its characteristics from the grains and the fruit juices of which it is made, and also from the vinegar into which it is changed by further decay, we must expect that it will produce different effects. And so we find that, while the grains and fruits of which it is made are perfectly wholesome, if there is any such thing as wholesomeness, alcohol has proved itself exceedingly poisonous on a small and on a large scale, to the individual, and to the race for thousands of years.

And this alcohol is produced, as we have seen, by chemical action. Such results cannot be brought about by merely chemical action. If we break up the wheat, as in grinding, its nature remains the same. It is starch, gluten, etc., still. But let this chemical action of decay take place at a certain temperature, and you will have alcohol, the effects of which, on the system, are not in any respect like those of wheat; and nobody knows this better than its apologizers. If alcohol and wheat are so much alike, why are they not satisfied with the wheat before it is rotted? and save a vast deal of time and expense to begin with, to say nothing of the greater economy as to the consequences.

We get a pretty broad hint here, that science has not a little to do with our every-day life. Scientific men, as such, may care very little about the results of bad eating and drinking upon the people, but we care about them. The true laws of science are the laws of God, under which we live, and we mean to understand them, and we cannot ignore them,

without suffering the saddest consequences, of which we cannot well have a more striking illustration than in the results of drinking that poison called alcohol. Let us not be diverted from our search for the truth by the illogical though oft repeated assertion, that there is "poison in everything." J. C.

HEALTH AND TALENT.

It is certainly no exaggeration, when we say that Health is a large ingredient of that which in every-day-life is called Talent. A man without Health may be a giant in mind, but his deeds are the deeds of a dwarf.

Give him, on the contrary, a rapid circulation of the blood, a good digestion, the body, the muscles, and tendons of a man, the cheerfulness, the implicit confidence, which arise therefrom—and though he possesses but a small amount of brain, nevertheless, he will not be blinded in prosperity or inconsolable in adversity.

It is particularly true in this country, that the number of centenarians in each community—*i. e.* men, in whom powerful intellects are united with bodily strength—is a small one; that in general, a man has all reason to consider himself lucky, when he draws as a prize—in the lottery of life—a healthy stomach without mind, or a sharp intellect with a sick stomach. Of both prizes, a weak intellect in a herculean body, is nevertheless preferable to a giant mind, with a sick constitution. One pound of energy with one ounce of talent, accomplishes greater results than a pound of talent with an ounce of energy.

The very first requirement for success in life, is to be a good animal. In any one of the learned professions, a strong constitution is at least worth as much as fifty per cent. more of brain. The wit, the imagination, the eloquence, yea! all actions of the mind, receive thereby a power and beauty, to which they could never attain without it, whereas, intellect in a weak body is like "gold in the pocket of an enervated swimmer."

A mechanic may possess nicely polished and sharp tools; but what will they benefit him without a strong arm and without a vigorous hand? What will it benefit, when we make the mind the store-room of all imaginable knowledge, and do not possess the power to turn the key, in order to enter into this chamber?—*Translated from the German, in the "Welt Bote," by P. L. WEBER.*

SELF-MADE LADIES.

Of all the current topics, that which interest us girls the most, dress and fashion is first; in fact, we seldom talk of anything else when we are alone together. This is not stupid like politics, nor monotonous like our tasks and school-books; it is the one subject of all others, that is ever new, because ever changing.

Times have improved greatly since our grandmother's days, in facilities for spreading the latest styles far and wide; and added to this, we have the knowledge of many artificial contrivances for personal improvement, which they had not. Fine birds could be made of fine feathers then; now we know how to make both the birds and feathers fine. We think it all well enough for children and old people to look robust, but quite unpardonable in a young lady. There is nothing in the way of appearance so detestable to us as looking coarse and weather-beaten, like the emigrant women when just landed in our country. It may not be generally known, that, to prevent this, many of us diet on pickles and candy, which is far superior to the old-timed method of bread and water, in reducing the tone of the system. Indeed, of the two extremes, we would rather be called delicate, and spend half of the morning on the lounge, than be accused (behind our backs), of belonging to that class.

Ofttimes Nature is inclined to very irregular ways, and needs to be remoulded, in order to become beautiful; it is usually before the school days are quite over that this matter of improving the form is most practiced. And here allow me to contradict the Doctors, that

this tight-lacing does not "hurt us," as they imagine; over and over again we protest it does not; and as for its being the first cause of Consumption or any other complaint, we do not believe a word of such trash; and, even if it were, what is a score of added years to one's life, compared to the all important consideration of possessing a genteel form? So we plead that Art must be allowed to finish what Nature has left undone!

Then, too, there are the powders and the paints for the complexion, and a certain drug, to be taken internally (with caution), which has the quality of giving the skin a peculiar clearness, and

something else for making the hands white, and a mechanical method for making the feet small, to say nothing about the mysterious "stuffs" around the head and hips; and here again we wish to contradict the Doctors, that these fixings are not "heavy," neither do they cause "ache or pain." We believe we have the ability to judge for ourselves what we need; and more, if industry in any worthy cause is a promise of success, we think that facts will prove that there are more self-made ladies among our numbers than can be found among any other class in the whole civilized world.

ONE OF THEM.

Pacific Department.

C. F. YOUNG, M.D., Corresponding Editor.

SEMI-TROPICAL FRUITS.

Since the prospect of the completion at an early day of the S. P. C. R. R.—has crystallized to a certainty—capitalists are giving more attention to the cultivation of delicate fruits for Eastern and Southern markets.

A company has been recently organized who have selected one hundred and sixty acres to commence work on, near Anaheim, Los Angelos Co. Oranges, lemons, citrons, limes, olives, figs and nuts of every variety will be grown in large quantities. The soil is a light sandy loam, mellow as ashes, easily irrigated, and beautifully situated.

The first settlers at Anaheim gave their whole attention to grapes and wine-making, only in a few instances sparing room for an olive or orange tree. But these have given most satisfactory results. A single tree, within four miles of town, has borne this year five thousand oranges, worth \$150. We predict for the association abundant success.

It is believed that thorough culture, regular application of water and fertilizers will, where the seed is selected with care, produce trees that will bear fruit

earlier than has been supposed possible.

In Tulare county, two hundred miles north of Anaheim, there are Sicily lemon trees full of fruit at five years old, and oranges at seven. They were grown from seed selected from the choicest quality of fruit, and then were cared for as kindly as the moss-roses and choicest flowers. Judge North, of San Bernardino Co., has oranges, lemons, and limes from five to eight feet high, eighteen months from the seed, that in all probability will fruit before they are five years old. The conditions will be a friable rich soil, good drainage, sun and air, and such light protection, as will secure continuous growth through the year.

The young orchards about Los Angelos are sheltered from severe wind by the close willow hedges; and from frost by corn stocks, or tute-canapes set up Indian Lodge or wie-i-up shape over the young trees; tied at the top, and pressed into the soil at the bottom. Thus sheltered, the young trees go on growing, pushing their tender terminal buds and shining leaves from December till April. Then the debris is all removed, and the ground thoroughly and regularly cultivated.

Our eastern readers must not imagine that harvests or fortunes are gathered without work. In this matter of oranges, where one will succeed, nine will fail, for lack of patience to hold on through ten years of patient toil.

THE BLUE GUM

FOR SHADE AND LUMBER.

There are trees of this variety in San José, six years old, fifty feet high, and ten inches in diameter. The leaves are shaped like the blade of a sickle, slightly tinged and veined with red. Grows best on low, moist lands.

Of the Eucalypti, *E. globulus* is very common in California, and easily cultivated; it is the Blue Gum of Victoria and Tasmania. "This tree is of extremely rapid growth and attains a height of 400 feet, furnishing a first-class wood; shipbuilders get keels of this timber 120 feet long; besides this, they use it extensively for planking and many other parts of the ship, and it is considered to be generally superior to American Rock Elm. A test of strength has been made between some Blue Gum, English Oak, and Indian Teak. The Blue Gum carried 14 lbs. more weight than the Oak, and 17 lbs. 4 oz. more than Teak, upon the square inch. * * * *

Of the rapid growth of this species of *Eucalyptus* and the facility with which it is propagated, most people in California who have had any experience with it are familiar, but, as perhaps few persons who have specimens of it growing upon their grounds or in their yards are aware of its value, otherwise than for ornamental purposes, I have deemed it a matter of interest as well as of importance to quote from Dr. Mueller's valuable paper. Having propagated the Blue Gum from the seed, and raised many specimens under not particularly favorable circumstances, I can indorse the remarks of the author from whom I have quoted. An instance of rapid growth immediately under my observation, is that of a specimen purchased by me of a nurseryman, which at the time of planting (Jan. 5,

1871) measured from the ground level to the extreme tip six and one half feet, and in about eleven months (Dec. 8, 1871) had reached a height of a trifle over fifteen feet; the diameter of the stalk when set out was half an inch, and at the final measurement one and three quarters inches. * * * *

WINE AND SONG.

The following poems are intended to show how a sentiment may be varied according to circumstances. The first describes the delight of the wine-bibber; the second, though written in nearly the same words, shows the advantage of temperance:

Fill me the glass with wine to-night,
And pledge me in its sparkling glory;
Through it the world seems fair and bright,
The tale of life a pleasant story.

Let us forget an hour or more
The debts and troubles of to-morrow,
While from you long-necked bottle pour
The healing balm for all our sorrow.

Sing me a burning, wildering song
Of passion, in the days when passion
Was worshiped, ere the groveling throng
Had learned to love in tamer fashion.

And with your song and with your wine,
And with the wit the grape juice brings us,
We'll feel like gods on thrones divine,
Lords of the song your minstrel sings us.

For why should we find time to fret,
With juice like this in foam before us?
Though many cheeks with tears be wet,
What vanished joys can tears restore us?

And though to-morrow see the plumes
Wave o'er the bier the grave must swallow,
We'll empty, in the place of tombs,
A bumper to the next that follow.

BACCHANALIAN.

WINE AND SONG.

Fill me no glass with wine to-night,
To lure me with its phantom glory,
But give me water, sparkling bright,
While I relate an o'er true story.

Let us rehearse, an hour or more,
The many times wine brought us sorrow,
By taking all our ready ore
And leaving us next day to borrow.

List to that burning, wildering song,
That fills the soul with demon passion;
Excites the groveling, idiot throng,
With wild excess to madly dash on.

And with that song, and with that wine,
The headache that the morning brings them,
Though they may think the sport divine,
I doubt the song the siren sings them.

Full soon they will find time to fret,
As many more have done before them;
And though their cheeks with tears be wet,
What can those heartful drops restore them?

Let others court the funeral plume,
And fill the graves they dig with sorrow;
Though they prefer the toper's doom,
Excuse us, pray—we'll drink to-morrow.

SAN FRANCISCO.

S. W.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

IMPORTANT HOUSEHOLD INVENTION.

BY R. T. TRALL, M.D.

Every family and every person is interested in every invention or improvement in machinery, that induces to health, comfort, or economy, in the matters of warming, cooking, and drying. Within a few years, several admirable contrivances have been introduced for accomplishing some one of these purposes. But now we have the apparatus that combines the whole in one. It is "Boswell's Standard Room Heater, Fruit-Dryer, Clothes-Dryer, and Iron-Heater combined."

Whatever may be said of a hundred other "greatest discoveries of the age," this is certainly one of them, if not *the* one. I speak by the machine, for I have thoroughly tested it. It is now *running* in my "Hygeian Home," where its work can be examined at any time, by any person interested. To those who have read the circular of the proprietor, it may be enough to say that it performs all that it promises. But in the benefit of others, a statement may be necessary.

But first, in the matter of economy alone, the machine is worth many times its cost; for the inventor does not exaggerate when he says "It saves to every family the price of the machine during the cold months of the year." In drying fruit or clothes, and in heating flat irons, it is more convenient and economical than anything else extant, while in the still more important matter of cooking, and especially in bread-making, it is just the thing for the Hygienist.

Bread-making, in ordinary stoves or ranges, is the most disagreeable part of Hygienic cooking, requiring the constant attention of the cook, and the frequent exposure of the face to a highly heated atmosphere; all this is entirely obviated

by the new invention. The temperature of the oven can be regulated to any degree desired, and the baking material requires no further attention during the process of baking; the heat is *deflected* to the cooking surfaces, and then, in warm weather, passed into the chimney flue without heating the room; while in cold weather, the channel to the flue is closed, and all of the heat which has been employed in cooking, is passed into the room, and as the smoke is consumed, keeping the atmosphere pure, and economising fuel, it becomes the pleasantest and cheapest room-heater in existence. That the quality of the food cooked in this manner should be improved, no one who understands the principles and mechanism of the machine need be told.

It may seem a little paradoxical, that any apparatus can be an excellent room-heater and an admirable room-cooler. It does not, indeed, "blow hot and cold with the same breath," but a single glance at the machine will convince any person that, by the simple process of turning a valve, the heat may be made to pervade the room or to pass away through the chimney. By means of registers, the heat, after performing the work of cooking, can be made to warm the rooms above or adjacent.

It is certainly a desideratum which I think no family will be long without, who understands its manifold advantages.

It only remains to add that the machine is so encased in wood, as to be an ornamental piece of furniture, in addition to its utility as a machine of all work; and may be encased in cast-iron or marble, if any one chooses to pay the extra expense. Indeed it can be operated in the dining-room or parlor, if the family is limited to apartments of only two or three rooms, without serious inconvenience.

SEASONABLE DISHES.

BY JULIA COLMAN.

The Fruit Carnival.—Fruits vs. Wines.—Tomatoes ; Fresh and Cooked.—Baked Tomatoes.—Canned.—Stewed Tomatoes.—Stuffed Tomatoes.—Tomato Puddings.—Peaches ; Fresh, Cooked, and Canned.—Cooking Pears.—Damson Syrup.—Water-melon Syrup.

SEPTEMBER, of all the year, is the carnival for fruits. We do not have so many small fruits, but peaches, pears, grapes, tomatoes and plums are in their glory. Apples begin to be solid and rich, while the melons laughingly roll in their handsome rigs of refreshing and delicious drinks to cool the lingering Summer heats. What more suggestive of a generous hospitality than to see the host standing up after the removal of the cloth to dispense crisp-slices from a huge, crackling water-melon? The effect, perchance, heightened by the flanking of round ribbed musk-melons, and dishes of rosy-cheeked peaches, purpling grapes, and pears swelling with luscious ripeness—these wines of choicest vintage, these drinks of Nature's own brewing. Does it not put to shame man's gross inventions to compare a load of water-melons with a load of lager-bier barrels? Or the delicious grapes, with the dingy bottles of thin rotted juice which so many consider the highest emblem of hospitality? We can hardly credit the evidence of our senses when we consider to what perversion of tastes man has been led by his artificial appetites. It seems equalled only by the injury to health and life which he suffers in consequence. Nothing has made man more gross than gluttony and drink. At this very moment it is soberly estimated that nine-tenths of the crime and suffering and poverty in this happy land of ours, comes from the drinking of alcoholic liquors. Similar results follow in other lands from the use of these and similar intoxicants. We refer to this simply to express our astonishment that the taste of man could be so perverted from the luscious and delightful gifts of Nature, as we still have them in the "tree yielding fruit" which was originally given to man for his sustenance. Strange as it may seem, it now

requires some study, at least in this latitude, to make fruits acceptable as a stated and important article of diet. Stewed and cooked fruits, and a few berries and cut fruits are admitted to the table to a limited extent ; but, as a general fact, people have got to learn how to take fruit as a part of their regular diet. There are thousands of farmers who raise the choicest apples, peaches, pears, plums, cherries and other fruits, which yet never appear on their table uncooked as a part of their regular meals, to be eaten before or after or with the other food. Premising that this should be done, we pass on to the more elaborate domain of cookery, which can prepare fruits for use in other shapes, and make their refreshing juices and flavors take the place of the hot and biting condiments which so constantly injure the digestive organs and pervert the taste.

Tomatoes stand first in variety of use and in general availability—if not in wholesomeness. In the latter respect they have, we believe, been greatly belied. In spite of the most extraordinary stories about their deleterious character, we have yet to be convinced of any serious injury done by their use, whatever may be said of the effects of the red pepper, butter and salt with which they are frequently seasoned. It is to me very amusing to hear them called a "vegetable," and see them treated with pepper and salt, when they are so palpably a big juicy berry.

I consider them a valuable addition to our list of fruits ; and all the more so from the fact that they come to maturity in one season. The settler on a new farm is not obliged to wait until fruit trees and berry bushes grow before he can have fruits of his own raising. If the soil be not too heavy and the manure not too rank, and if the season be rather warm and dry, tomatoes may be produced of a quality quite fine enough to eat from the hand without dressing. Certainly the appearance of the fruit is handsome enough to give it a place in any fruit-basket.

When perfectly ripe, they peel readily,

and are more delicate without scalding. To a simple taste they are very nice for "sauce," peeled and cut up without seasoning; and if so placed upon the table, each one can season them in his own dish if he prefers to do so, and then all will be suited. Or you can place them on the table whole, as is often done at public tables, letting each dress them for himself, though you will need to provide an extra plate for the waste. The most natural seasoning for this, as for all other fruits, is sugar. Sugar and lemon-juice is a delicious dressing; so is sugar and corn cream. Those who barbarously treat them as a "vegetable," prefer salt, or salt and vinegar, while others add to this a little minced raw onion, but that is not to our taste. Cut up with fine ripe peaches in equal parts, or with one-third peaches, and sweetened, they produce a charming dish. In this case they are better to be prepared half-an-hour beforehand, being kept cool and covered.

For cooking, tomatoes may be scalded and skinned. Then slice and stew gently in their own juice for thirty minutes or more. Season with sugar, or with sugar and lemon or lime-juice; or, better still, with nothing at all. Thicken, if desired, with Graham bread crumbs, or pounded cracker, or with boiled rice, or with good oat-meal; one large spoonful of the latter to one quart of tomatoes. The oat-meal will cook sufficiently in ten or fifteen minutes. Grated or shaved green corn is another excellent thickening: one gill of the corn to one quart of tomatoes. Cook fifteen minutes after putting in the corn, salt slightly, and serve warm. Again, cook with one-third green or tart apples, slicing in the latter with their skins when the tomatoes are half done, and cooking until the apples are not quite tender enough to fall to pieces. Season with either sugar or salt. They are also very nice cooked with pie-plant or with green grapes—seeding the latter if desired; seasoning with sugar, and thickening with oat-meal. For a dinner dish, slice up one part onions, cooking gently in a little water for fifteen minutes,

and then adding two parts sliced tomatoes with their juice, and cook half-an-hour longer. Season with salt, and serve warm or cold. This dish, and the one with apples, often become great favorites.

Tomatoes should never be cooked in metal of any kind. Pipkins and porcelain lined ware produce much more palatable dishes, and save the tin-ware.

Baked Tomatoes make a choice dish. Select those of good size and ripe, wash, and bake unseasoned on a pie-dish in a hot oven for forty minutes, or until quite tender. They are best to bake them on the top first, and then set down to bake on the bottom and to reduce the juice. If there is danger of drying up the bottom before the fruit is done, add water or more tomato juice. A little of the thick juice should be served with each tomato. These harmonize nicely with beans, for a dinner side dish. If desired, the skins can be removed before they are sent to the table.

These baked tomatoes are nice to dry, pouring the juice over them as the drying proceeds. If put away in a close jar, these can be used to good advantage for soups when it is not desirable to open a can, or they may be gently soaked out in hot water and used as baked tomatoes. For the latter purpose, however, it is better to can them as soon as baked. Have an abundance of juice, pour some of it into the can, fill up with the hot tomatoes, then boil the can a little while to expel the air, and seal up as you do other fruit.

Stuffed Tomatoes make a more showy and a more substantial dish, an excellent accompaniment to lima beans. Select one dozen large smooth tomatoes, wash and cut a lid from the stem end, and scoop out the seeds. Stew the latter with the juice in a saucepan twenty minutes with one medium sized-onion minced fine, a salt spoon of salt, a spoonful of lemon juice, if at hand—a teaspoonful of thyme leaves, and bread crumbs are an improvement. Mix thoroughly; cook altogether ten minutes, and with this fill the empty tomatoes, replace the

lids, and bake on a pie dish in a hot oven one hour, or until they are quite tender, but not broken down. Serve warm.

Tomatoes are much used in vegetable and meat soups, though here their taste is frequently injured by the metal in which they are cooked. The proper remedy for this is to cook the soup in a porcelain-lined kettle.

Stewed Tomatoes whole, make a nice and a handsome dish. Select the smaller and prime sorts, the plum tomato if you have it. First take the juice from large tomatoes, say one pint; shred into it one large onion; cover and stew gently fifteen minutes; then strain and put the juice back into the stew-pan. Add to the small tomatoes unpeeled enough to fill up the juice and stew gently half an hour, or until tender; then skim out the fruit, thicken the juice to taste with wheat meal, salt slightly, add a teaspoonful of lemon juice, if at hand, and thyme or bay-leaves if you like, pour over the tomatoes and serve warm. Small tomatoes may be canned whole for this and other dishes, by putting them uncooked into the cans, filling with water or tomato juice, boiling them half an hour, and then sealing after the manner of other fruit.

Tomato puddings.—Several nice puddings can be made of tomatoes, but I have observed that people who commonly eat their tomatoes with salt, cannot appreciate sweetened tomato puddings. They would prefer tomatoes and rice; a side dish, made by cooking gently one part dry rice into three parts peeled and sliced tomatoes in a pipkin, with two parts water for forty minutes. This may be seasoned with either salt or sugar.

The more delicious puddings could be salted, I suppose, but then they would be less delicious. For a rice pudding, take the best large tomatoes, peel and slice them one-fourth of an inch thick, and lay them in a pipkin, strewing between them layers of rice; taking in the whole by measure—one part rice and one part sugar to seven parts sliced tomato. Cover closely and simmer in a moderate oven,

two or three hours, or until the rice is thoroughly swelled out, and almost converted into a jelly, by the juice of the tomatoes. Serve warm or cold, with sugar or sweetened cream.

For a tomato bread pudding take one part thinly sliced Graham bread or batter biscuit, and four parts sliced tomatoes; place them in alternate layers, with a little sugar, cover close, and bake one hour. Serve with sweetened milk or cream, or with a syrup of white sugar. I have already given in the last number a green corn custard, with tomatoes, which is good enough without dressing. With these recipes, I must lay aside tomatoes for the present, although their availability in cooking is by no means exhausted. Few materials are so tempting for experiment.

Peaches do not bear so much cooking, though they are certainly a firm fruit used fresh. There are more objections to eating peach skins—both on the score of wholesomeness and good taste, than to the skins of most other fruits; but the greatest objection to their use whole at table is, that the juice stains the napkins and table-cloths sadly, and that these stains, hardly perceived at first, are very dingy, and are removed with difficulty. The use of red napery is one remedy for this, and another is to use old napkins and table-cloths during the peach season.

This apparently trivial difficulty really often constrains the housewife to serve the peaches already dressed. An improved method of doing this lies in scattering the sugar in with the fruit as it is sliced at once, into the dish from which it is to be served. They should not stand more than half an hour before serving, or they should be covered very closely, as exposure to the air injures both their flavor and their appearance. Ripe and tender fruit only should be served in this way. If it is hard and green, stew it remorselessly. For common use, stew them whole, and the skins, if objectionable, may be slipped aside by the eater. At a certain degree of ripeness, between hard and soft, peaches may be skinned by letting

them stand a few minutes in boiling water, and then rubbing off the skins with a coarse towel.

One of the best uses for cooked peaches is for green corn custard, (recipe given in August number). Another is for ambrosia (see *Science of Health* for June), though for the latter purpose, firm and highly flavored fruit only should be used.

For drying, the same rules may be observed as for the smaller fruits, excepting the scalding. Very ripe fruit is not the best for drying, unless it be squeezed out and dried quickly into a peach batter. Preserve this in clean paper bags, and upon occasions it will make a nice traveler's dry lunch, with wheat meal biscuit, or oatmeal or barley cracknels.

In canning, the great labor is to pare the fruit. Since it will not peal readily like a tomato, we pare on a machine like an apple. The quantity canned is for this reason often sadly limited. It is better, however, to put them up in their skins, than to go without them. On account of the labor of pareing, cook whole and ladle into the cans. For nicer work and more tender fruit, boil after putting into the cans. Add the required sugar when the cans are opened.

It should be remembered that the best flavored fruit is as much better for drying and canning as for use fresh, and that poor apples, peaches, pears, etc., will not make good dried fruit. If better material were used, dried fruit would be much more in demand than it now is. It would go far toward securing this end, if the purchaser were able to judge of the quality by the taste and appearance when buying, and this is perfectly practicable. But people who dry their own fruit have no excuse for drying a poor article. The very fact that they are putting so much extra labor upon it, should lead them to select the best in quality, though not that which is over ripe, especially among the perishable fruits. If you wish to try a convincing experiment, dry a few common coarse pears and some Bartletts, and compare them when dry. The latter are both delightful and economical; because, when stewed, they not only have a fine

flavor, but they require little or no sweetening. They are also admirable in puddings, like the American plum pudding, instead of the raisins. Those who are wise and able to do so, will lay in a supply. Cooking green pears, like the Bartlett, often develop a flavor similar to that which they have when ripe.

Cooking Pears.—There are, however, many varieties of pears called "cooking pears," which are good for nothing until cooked; and the most of these are good for nothing when cooked, unless it be to absorb seasoning. I confess I do, sometimes, when driven to the necessity of cooking such pears, slice a little green ginger into the sweetened juice, being careful to remove it before it imparts a very sharp flavor. A better fashion is to cook lemons with them, cutting the latter into half circles, an eighth of an inch thick, allowing about one slice to each pear, and sweetening to the taste. Then dish the pears, place the rings between the pears around the edge of the dish, and pour the juice over the whole. If the pears are pared and quartered, peel the lemons and cut them into strips lengthwise. Other acids, like those of green grapes, rhubarb and damson plums may be used to flavor the syrup of these flavorless cooking pears, and when thus prepared, they may be canned like other fruit. Baked pears may also be treated with such prepared syrup. Rich and juicy pears baked, may be served without a syrup. The richest and most juicy ripe pears may also be cut up uncooked, and served with sugar sprinkled over them like peaches.

The various fruits of this season, and the uses that may be made of them, cannot be fully treated in one article of reasonable length, but I must mention one use for damson plums, besides that of putting them into ambrosia, where they are most excellent, and that is to make a syrup of their juice, to be used as a flavoring. Put them whole into a porcelain kettle, cover them with water, boil up once, then turn off the water and reduce it to the consistency of a syrup. This can be used for flavoring puddings, and for many other cooking purposes. (See "coral pudding," page 29, in *SCIENCE OF HEALTH* for last January.) When this juice is stewed down thick it will keep without canning, which makes it very convenient for common use. It also makes delicious pudding sauces. The fruit can be again treated in the same

way, or it can be sweetened and used on the table. After the second draining, however, it is of little or no value. These fruit juice flavors are far more simple and wholesome than the spices and essences commonly used in cooking. I once tried water-melon juice, and produced a rich and agreeable syrup; very good to be used as a syrup, but valueless as a flavor. The cooked residuum had a striking resemblance to stewed pumpkin.

Removing Fruit Stains.—To remove fruit stains from the hands, use the juice of such acid fruits, as do not themselves leave much stain. Among these are lemons, limes, tomatoes, rhubarb, pineapples, green grapes, very sour apples, gooseberries, and some kinds of plums. In cooking, if convenient, use these last, and your hands will be left clean; or, save their refuse, and use them as soon as the stains are made. It is well in the fruit season, to have lemon or lime skins, or something of the kind always laid by for that purpose. Bits of dried lemon moistened and rubbed on the hands clean them of many stains. Vinegar is also of some use. The stains should be completely removed before soap is applied. If they are obstinate, scour them off with pumice stone or with sand, or wet the hands and rub on crystals of oxalic acid. As this acid is very poisonous, it is best to keep it in the crystallized form, in a bottle labelled "poison;" put always in one safe place. Do not use it too freely or too frequently, as it is liable to roughen the skin. After using it, wash the hands thoroughly in pure water. To remove stains from cloth before wetting or tampering with it in any way, pour on boiling water, and if necessary, let it remain in the water for a few minutes. If this is not sufficient, and if the clothes are white, squeeze on a little lemon juice; add a pinch of salt, expose to the sun, dropping on water enough to keep it moist. Add more lemon juice if necessary, until the stain disappears. A little oxalic acid in crystals applied and moistened with water in the same way, effects the same purpose, but it must be very thoroughly washed out in the course of a few hours, or it will rot the cloth. None of these acids can be applied to printed or colored goods, without injuring their color. Remove stains on them by scalding, as already directed.

If, after all, some stains are left upon white goods, wash them in pure water, and then lay them for an hour or two in Javelle water; rinse thoroughly in two or more waters, and dry. This is also

poisonous, and rots the cloth if not carefully washed out; but it is a most valuable adjunct to the laundry, removing most kinds of obstinate stains.

Javelle water can be obtained from the druggist cheaply; but I find a recipe for making it, which directs to "take one pound sal soda and five cents worth of chloride of lime, put in an earthen vessel, and pour on it three quarts of hot rain water; let it settle, and pour it off, keeping in bottles for use." Pour this on the stains, or add equal parts of water, and allow the goods to lie in the mixture a few minutes. I should have tried this myself if I had known how much "five cents worth" of chloride of lime meant. That is the loose way in which some people write recipes.

Canning Green Corn.—A correspondent calls the article on green corn defective, because it omits directions for canning. If the article had not already been too long, we might have added that we consider well dried and kept and properly cooked green corn quite superior to most canned corn.

Those who can fruit, stew up their corn, and can it after the same fashion, and then are amazed that it does not usually keep. The difficulty is, that it requires a longer time to expel the air from grains and vegetables, and the air must be expelled before the goods will keep. According to the experience of most people, from three to six hours' cooking in a close vessel is required to expel the air from green corn, and this long cooking drives off all the exquisite aroma. It is both less trouble and it produces a better dish; to dry it quickly after slight cooking, then to preserve it from the air and dust, and when wanted to soak it out in hot water on the stove, boiling it a few minutes at the last. This, we intended to say, when the time came for cooking it.

But if people will can it, the best method with which I am acquainted, is to shave it from the cob, and put it into tin cans, fill up with water, have the lid soldered fast, leaving only a pin hole puncture in each. Then immerse the can in boiling water, and boil until no more air bubbles escape; then lift from the water, and put a drop of solder or wax at once into the little pin hole depression and the work is done.

We are told that there are glass jars prepared with covers acting as a valve for this difficult work. I do not know that any device has been found to expel the air in a much shorter period, though we have reason to expect that the canning

without cooking will be much more effective, because in the present process it is the long cooking that does the injury.

SCIENCE IN THE KITCHEN.

An indignant—probably a dyspeptic—writer in *Scribner's Monthly*, expresses himself thus:—

"There is no department of American life so cursed with ignorance and lack of skill as that of domestic service. There are thousands of families in this city—and the same fact obtains in other cities—who have no satisfactory service from year's end to year's end. The servants come and go, and lie, and waste, and spoil, and quarrel, and steal. They have no loyalty, no faithfulness, no carefulness, no skill to do the duties which they undertake and which they loudly and confidently profess to understand. Their ignorance is only matched by their insouciance. They have no disposition to learn, no ambition to become excellent, no desire to please, and no wish to remain for any considerable length of time in one place. [Except our Mary, our Delia, and our Julia, all of whom are good girls.] The sailor's boarding-houses, from which the men are dragged and shipped for every brief voyage, do not seem to be more demoralized and hopeless places than many of those holes so strangely misnamed 'intelligence offices,' from which scores of girls are sent into families every day—girls who are known to be inefficient, and who are expected back in search of another place before the first month is out. The waste of fuel in rich men's kitchens would keep all the poor people warm. The food thrown away, or ruined by recklessness and ignorance, would feed tens of thousands. Foreigners wonder that the American family takes to the boarding-house and the hotel, but the secret of this strange liking for hotel-life is in the wretched service of domestic life. Women get tired and discouraged with housekeeping, and give it up." The writer suggests, as a partial remedy, a concert of action on certain points among the ladies of the city. "These points are, *first*, that no lady shall give a servant a certificate of character or skill that overstates the facts in the slightest degree: *second*, that no servant shall be engaged who cannot bring a satisfactory certificate from her last place, or give competent references: *third*, that when a mistress finds herself imposed upon by false representations, she immediately dismiss her servant, so that, at

last, all incompetent servants be driven into places where their wages shall bear some proper relation to the value of their work." The most effectual measure, as the writer intimates, would doubtless be the application of science to the cuisine. Sound knowledge must carry the day in the kitchen as everywhere else, and not until the preparation of food is held to be a branch of high art, no less than the composition of books, will the purgatory of domestic service be relieved by a ray of light."

[So far so good. But are not others to blame as well as servants? How are these poor creatures treated by inconsiderate employers? With an ignorant mistress, what can be expected of an ignorant servant? How many of our modern fashionable city wives know how to cook, or properly to direct the same? Why, the poor, young, and helpless things are, of course, at the mercy of just such servants as they happen to pick up at intelligence offices, where all sorts may be found. A little science, or even a little common-sense, would enable employers to select the *kind* they want. But how much do common housekeepers *know* about reading character? As a general thing, they are as ignorant of this as of cooking. Would it not be as well to find the right sort of material—young and teachable—and train them to your use? Or, have them trained? Then, would it not be well enough to treat them with some consideration—as though they were human? Would not right treatment secure continued service? In some families, servants remain for years—or, indeed, half a lifetime, or till married, and they set up housekeeping for themselves. But there is no doubt of the fact, that many servants are "bad enough," and so are their employers. Things may be improved; why not begin with the mistress, and so work down to the servant? Is there anything in Phrenology, or Physiognomy? Can the character of a stranger be told by the head or face? May it be found out, in advance, as to who will lie, steal, waste and cheat? Or who will be truthful, honest, saving, and trustworthy? There is a difference in persons, but can anybody predetermine who is who?]

A DISTILLING STOVE.

We copy the following from the *Phrenological Journal*. "We have alluded to the need of some apparatus by which water might be distilled for the uses of a family in those sections of our country where pure, soft water is not to be had in sufficient quantities from natural sources. In response to the statement, an eminent Western engineer, Mr. John W. Whinfield, sends us the design which we place before our readers. As will be seen, the apparatus is quite complete in detail, and at first sight is likely to elicit approval. The following is a description of the apparatus as represented in the engravings :

Fig 1 represents a side elevation of the still as it stands upon the stove, surrounding the stove-pipe; at the left is shown the condenser (*f*) with its worm, and beneath is the distilled water receiver (*g*), while in front, and partially hiding the still, is its feeder (*e*).

Fig. 2 represents the general plan.

Fig. 3 represents the back elevation of the receiver (*g*) with the condenser (*f*).

Each separate part of the apparatus, as it is represented in the different figures, being distinguished by its special letter, it will be sufficient to trace the course of the water from its head to the receiver, when the whole operation can be perfectly understood. Thus :

From the head, which, in the absence of other means, may be a cask, the water flows through the pipe (*y*) into the condenser (*f*), the overflow passing through the pipe (*z*) into the boiler-feeder (*e*), wherein it descends and flows through the pipe (*u*) at the bottom into the still or boiler, the height of water in the boiler being determined by the waste pipe (*s*), which restricts it to the dotted line (*n*).

Having arrived in the boiler, it is there

converted into steam, and, free from impurities, rises; and, passing between the annular disks (*d d*), arrives in the

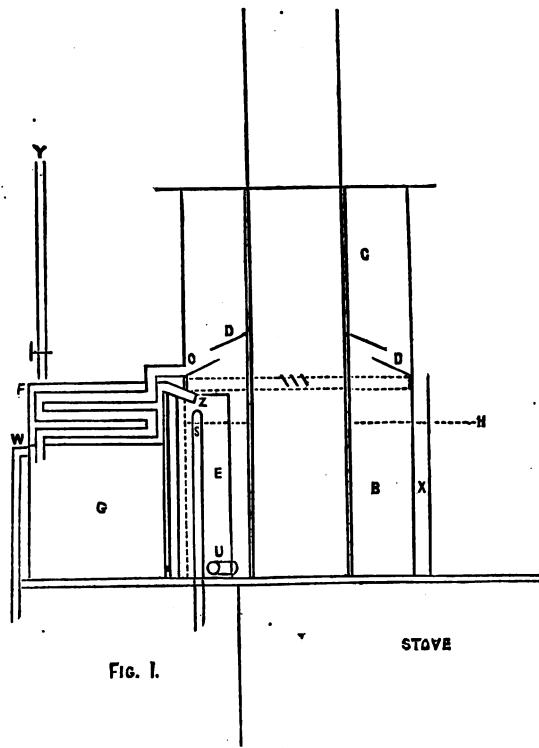


FIG. 1.—DIAGRAM OF DISTILLING APPARATUS.—SIDE ELEVATION.

head (*c*), where it is partially condensed, but prevented from falling back into the boiler by the disks (*d d*); it passes through the pipe (*o*) into the worm, where it is wholly condensed by the incoming hard water from the head or cask, and falls from the worm into the receiver (*g*) in a pure state for use.

As, in cooking, contact with iron is to be avoided, so the water, in this operation, should, after leaving the boiler, be protected from such contact—the still-head and disks might be constructed of block-tin (plates) unsoldered, the worm of Prince's metal, and the receiver of tin, protected from outside wear and tear.

This apparatus ought not to cost more than ten dollars; the area of its base is only 16 inches by 25 inches, its greatest height 24 inches, and the capacity of its

receiver nearly 4½ gallons. The quantity of water distilled will be determined by the amount of, and duration of the fire, and what overflow there may be from the receiver may be conveyed through the pipe (*w*) to the house cistern. The waste from the boiler-feeder by the

the hard water joins the boiled ; three or four oyster shells, or a few chips of limestone, will prevent a deposit of lime on the bottom and sides of the boiler, as it would have a greater affinity for the shells, etc., than for the metal.

As all the parts of this apparatus are open to the atmosphere, no danger is incurred in its use; the worst that could happen in winter would be the freezing of the supply pipe—in which case the boiler could be filled by filling the worm vessel until water flowed through the waste pipe (*s*) or the boiler-feeder (*e*).”—

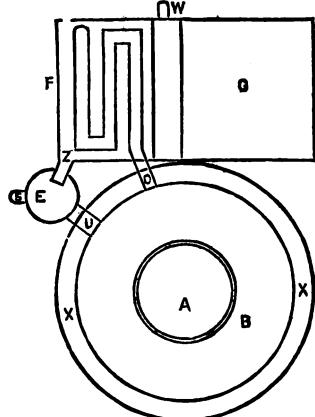


FIG. 2.—GENERAL PLAN—HORIZONTAL VIEW.

pipe (*s*) can be taken to the drain or otherwise, as convenient. The space (*x*) between the boiler and its jacket should be packed with some non-conducting substance, as clay. The still-head (*e*), as shown, may be distinct from the boiler, the two connected by a close-fitting joint below the disks. A shelf is shown on the top of the still-head, which will be found convenient.

This apparatus will be a great benefit in domestic economy; few people are

A Distilling Tea-Kettle.

An ingenious Hygienist has recently invented a still cheaper and more simple apparatus for supplying families with pure water, with no expense whatever. This is a modification of the common cast-iron tea-kettle ; its construction will cost ten cents more than the ordinary article, and has only to be placed over the fire on a common stove, or on the top of it. We will give a full description with illustrations in a future issue.



COMPARATIVE CHARACTERISTICS OF DIFFERENT FRUITS. It would be interesting to classify or compare certain varieties in the different kinds or species of fruits.—For example, the seckle among pears, the green gage among plums, the Delaware among grapes, etc., resemble each other for their unexcelled flavor, small size and moderate growth. The Rostiezer may be termed the seckle of Summer, and Dana's Hovey the seckle of Winter. Wilson's Albany among strawberries, the Bartlett among pears, the Baldwin among apples, the Concord among grapes, and the early Richmond cherries are distinguished for their reliability and productiveness, connected in most instances with moderate quality—to which may be added the Ben Davis apples at the West, and the Rhode Island greening at the East.

Those which are remarkable for their excellence, without regard to vigor or growth, fairness of appearance, or productiveness, would include the Dyer and Melon apple, the Triomphe de Grand, and Burr's New Pine strawberries, George IV. and Bergen's yellow peaches, Huling's Superb and Golden Drop plums, and Knight's Early Black and Reine Hortense cherries, and the Rebecca and Allen's Hybrid grapes. Such lists might be increased and extended with interest, and would afford valuable information to novices.—*Country Gentleman.*

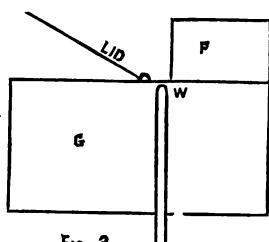


FIG. 3.—RECEIVER AND CONDENSER.

aware of the disadvantages attending the use of hard water in cooking—it hardens animal tissues, curdles their juices, spoils all vegetable matter, and sours the cook's temper.

The two dotted lines (*ll*) show where

PLANT TREES.—We have terrible accounts of the famine in Persia, and there seem to be some likelihoods of a calamity awful to contemplate, but one which we hope will prove to be impossible in this era of civilization, the extinction of a nation for lack of food. The cause of this state of things, we are told, is in a measure owing to the loss of the trees. Man destroys the trees, the absence of trees brings drought, droughts, diminishing the producing power of the ground, finally destroy it entirely, consequently the population dwindles. Spain is cited as an example; it had once forty millions of people, and was fertile and prosperous, now it has only sixteen millions of people, and is not half under cultivation. Persia was once powerful; it is now almost a wilderness, and its population of two millions is perishing from famine, caused by a three years' drought. Having neither common roads nor railroads, it is almost impossible for the charity of the rest of the world to reach it. It behoves us, then, before it be too late, to look after our trees.—*Ladies' Repository, Boston.*

[Ploughed ground retains moisture much longer than that which is not ploughed. Growing grain or other crops condenses the air into water, and thus brings moisture to the parched earth. It is also claimed that railways and telegraphs have something to do with equalizing temperatures, and affecting the rainfalls. Thus, trees with their foliage, green grass, growing grain, and ploughed fields, with other civilizing agencies, each plays its part in the programme of "Progress and Improvement." We shall plant trees.]

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COAL OUTDOORS.—A German has made experiments to ascertain the amount of loss that coal undergoes when exposed to the weather. It will, perhaps, surprise many readers to hear that the loss is considerable. Anthracite and cannel coal, as might be anticipated from their compactness, suffer least; but ordinary bituminous coal loses nearly one-third in weight, and nearly one-half in gas-making quality. From this it will be understood that coal should be kept dry and under cover; and that to expose it to rain or damp is to lessen its quantity and weaken its quality.

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TO SEED GRAPES.—Slip the pulp from the skin by pressing between the thumb and fingers; boil the pulp until the seeds separate, then sift them; add the skins and boil until they are sufficiently tender; sweeten to your liking and can.

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CARPETS are injurious to health, so far as the lungs are concerned. They accumulate dirt, and hold it as a reservoir. Every motion of persons, things in the room, or even of the air, causes it to rise in an impalpable powder, to be seen only in the rays of sunshine that may chance to get into

the room to fade the colors of the carpet. Therefore, to preserve the carpets and the accompanying furniture in their beauty, carefully exclude the light; and, to exclude the dust, keep the windows closed; and, to preserve the health of the family, let them live in other rooms, with no carpets, plenty of air, and floods of sunshine.

This arrangement would keep things even between the family and friends visiting, inasmuch as they pay, for a generous hospitality, with the most precious of all coin—their own health.

F. W. EVANS.

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STRIKING CUTTINGS.—At this season the amateur gardener should commence to strike cuttings for a "window garden." All kinds of "*bedding out plants*" grow with great ease in these warm summer days. They should be taken from wood partly hardened—not the tender young shoots—and planted in sand with a rich soil at the bottom of the pot. If grown in small pots, they should be sunk in a shady situation, and sheltered from the rays of the noon-day sun. The earth should be kept well watered; if allowed to dry up, it may cost you the life of your pet. As soon as the lower leaves drop, the cutting has struck root, and in a week can be transplanted to a larger pot, and have all the sunlight you can give it, to make it a vigorous, thrifty plant for winter blooming.

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TO CATCH POTATO BUGS.—Take a tin pan or other suitable vessel, and pour a small quantity of coal oil, or petroleum fluid in it, hold it near the potato tops, and with a broad stick brush the bugs in the pan, shaking it at the time, or afterwards, so as to wet the bugs, then they will travel *some*, and you will be pleased to see them killed with so much less trouble than by hand-picking. Other bugs can be killed in the same way.

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A NEW WAY TO DRY PEACHES.—Dr. JOSEPH TREAT, of Vineland, N. J., gives the following, and as he says, new directions for preparing peaches for drying: "Never pare peaches to dry. Let them get mellow enough to be in good eating condition, put them in boiling water for a moment or two, and the skins will come off like a charm. Let them be in the water long enough, but no longer. The gain is at least sixfold—saving of time in removing the skin, great saving of the peach, the part of the peach saved is the best part, less time to stone the peaches, less time to dry them, and better when dried. A whole bushel can be done in a boiler at once, and then the water turned off.—*Practical Farmer.*

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CANNING TOMATOES.—Avoid having them too ripe; pare and slice about a quarter of an inch thick; set them on the stove in an earthen

crock, add a very little water. As soon as they come to a boil, take them up with a spoon, one slice at a time, thus keeping your slices whole and leaving the juice to boil until your can is filled with tomatoes; then turn in your boiling juice and seal up.

PLANTING CURRANTS.—You may plant your currant cuttings now. Many regard the fall the best time to do it, and if done now it will not take your valuable time in the Spring. Select shoots of this year's growth for cuttings. Prepare a deep, rich, dry bed; plant in rows two to three feet apart, leaving but one bud above the surface; cover in winter with litter, which remove in Spring. Do not give up currant culture because of the currant worm. So cheap, easily grown and healthful a fruit should be found in every garden.

KEEPING GRAPES FRESH FOR WINTER USE.—If you desire delicious, fresh grapes in winter, they can be had by a very little care and expense. Pick the bunches only in a dry, warm day, and place them in a cool, shady place for at least three days; then commence to pack them in

paper boxes that will hold about ten pounds. Between each layer of grapes place a single thickness of newspaper; the boxes should not contain more than three layers in thickness. Then place in a cool, dry room—not in a cellar, for the natural dampness there will cause mold and decay.

AMMONIA FOR STAINS.—It is said that in any case where an acid has taken the color from a fabric, ammonia will restore it. Also that washing a carpet in ammonia water, say a tablespoonful of concentrated ammonia to a quart of warm suds, will take almost any stain out of it. A correspondent says: "I don't know but I could keep house without my bottle of ammonia, but I shouldn't like to try. In cleaning paint, glass, silver or gold, it is invaluable, as well as for keeping the hands soft and white after cleaning all these other things. For cleaning windows, I put a teaspoonful of strong ammonia in a half pint of clear warm water, wring a cloth out, and rub sashes and glass, then rub with a dry cloth."

Stains, pencil marks, fly specks, and all manner of dirt, disappear under the ammonia treatment, with no injury to paint or varnish if not used too strong.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

DYSPEPSIA—CONSTIPATION.—“Seeing your good advice to others who inquire of you concerning their physical afflictions, I am led to state my condition to you and ask your counsel. In the spring of 1870, I was taken with an unusual feeling of dulness, which at times made me almost indisposed to exert myself at all. My bowels became irregular—in fact, they became very costive. I was at the same time attacked by despondency, which seemed to me to come on periodically, as I felt it most sensibly about the first three days of every week, and after that it gradually wore away, until the next Monday, when the same feeling would return, as before. I suffered not the slightest pain, but labored under the most intense anxiety of mind. I was leading a very active life, superintending, (and working as a laborer most of the time) on my father's farm. I consulted a physician, who told me that I had some kind of “obstruction” (I do not recollect its technical name) and was in imminent danger of “Dyspepsia.” He doctored me, but my condition grew worse. I was necessarily exposed much on the farm, and was frequently wet by showers. I became very emaciated, and at last had to quit trying to attend to business from sheer weakness; but still suffered not the slightest pain—only the anxiety of mind, despondency, and dulness.

About the last of August, I was taken with a severe cough—and expectorated very freely a yellowish matter. I left the farm, and commenced studying law. I placed myself under a different physician. He watched my case for some time; my cough passed away, and he pronounced mine a case of “Dyspepsia.” My bowels continued very costive, never moving without some purgative to move them. For four or five months I suffered much from heat about the region of the stomach. I had a voracious appetite, but controlled it very well, and took a good deal of exercise. My head—mind,—was always confused, so that I could hardly understand anything I read. I have improved slowly until this time, except in the matter of my bowels; they are as costive as ever. Those periods of despondency return occasionally, and often my mind is confused in the same way. I have either to use purgatives or tepid water injections. One physician applied electricity, which had the effect of keeping them moving for about two months—the longest relief I ever had. I eat very moderately; eat no meat; and have lately been living on biscuit and syrup—which moves my bowels to some extent. I drink nothing at meals; drink no tea or coffee. Do not use tobacco or drink liquor, and take a good deal of exercise. I am now practicing law; am twenty-three

years of age. What shall I do? Will I ever entirely recover? I shall eagerly look for an answer and advice through your columns."

This is simply a case of dyspepsia, aggravated by constipation. A change of occupation would be desirable. A voyage at sea; a summer in the mountains; horse-back riding; with such simple diet,—fruits, vegetables, etc.—as would keep the bowels open and free. A daily hand-bath, to keep the pores of the skin in healthy action, would be beneficial. Medicines can do no good. When stomach, bowels, etc., perform their functions properly, the brain will do its work, the mind will be clear, and the spirits buoyant and hopeful. The causes, treatment, and cure of this distressing disease is given in the work just published on *Digestion and Dyspepsia*, which those who are afflicted therewith would do well to read.

BRAIN AND MIND.—Ed. *Science of Health*. Sir: In your "Science of Health," I have seen questions asked and answered on various subjects. The question I propose to you, is Phrenological. Perhaps you would prefer to answer it in *The Phrenological Journal*, but I am not so likely to see your answer in that, as I shall be, if you give it in the *Science of Health*. A few years ago I was present when some people were speaking of Phrenology, and one asked if there were any natural material division in the brain, to which an M.D. who was present replied, that there is a very fine membrane called the Arachnoid membrane.

Now it seems to me, that the divisions formed in the brain by the Arachnoid membrane, or by any other membrane, or any material divisions, are not the boundaries of the different Phrenological organs. I do not pretend to understand the matter, but I would like you to tell me the accepted theory. If I were asked to explain the subject, I should say:

The intelligence is distributed through the brain as Phrenologists describe, but the division of the mind into different faculties is effected as the light is divided into different colors in a rainbow. The light is but one thing, yet in it are seven colors. The soul is but one, yet it has many faculties.

I suppose the blending of spirit and matter in us, to be like the blending of light (which is not exactly matter, I think,) and matter in a rainbow. Am I right?

Ans.—The Arachnoid membrane is spread like a spider's web (hence its name) over the surface of the brain, but it does not divide the brain nor constitute the boundaries of the organs. It is like a fine lace veil, made up of vessels which secrete or supply a bland, lubricating juice or fluid, to keep the brain surfaces from becoming chafed by their action upon each other, or upon the lining membrane of the skull. The brain matter is fibrous, and these fibres extend from the capital

of the spinal cord as the structure of Cauliflower is developed from its stem. The Phrenological organs have a distinct character, but the brain fibres composing an organ are not fenced off and separated from those of other organs. In like manner, the nerves of motion and those of feeling, are packed and lie side by side in the same tube or sheath, and thus run from the spine to the end of the finger, and no fence or membrane divides them; still they are entirely separate in function.

Your illustration of the mind and its faculties by means of the prism, or by the sunshine through rain which separates the various colors that are combined in light, is a very pretty one, and perhaps is as strictly analogous as any illustration that could be made. All faculties combine in mind as all colors are combined in light.

DYSPEPSIA.—D. C., writes from Ohio: "My father is suffering from dyspepsia and pain in the right side; is very feeble and a mere skeleton. Is sixty odd years of age, and has been a hard-working farmer. Is troubled with sour-stomach and at times sickness and vomiting. The bowels are irregular, and sleep broken and unrefreshing, and he is annoyed with muscular twichings, especially at night. Appetite is variable, either clamorous or dainty. He took medicine from a physician with only momentary relief, and still continues to take morphine, which he has been taking for some time. Is not this injurious? How can he be relieved of the pain without the morphine? What may he eat, how much, and how often? Anything you would advise in regard to his case, I assure you would be very thankfully received.

"P. S.—In reading your invaluable *Science of Health*, I feel that I have a better guarantee of my physical safety, than any or all the doctors could furnish."

To continue the use of morphine, is only to make a bad matter worse. If he could be placed under treatment at a pleasant Health Institute for a few weeks, his trouble would, no doubt, readily respond to the remedial effects of the warm water bath, the pack, the movements, etc. His diet should be very plain, consisting chiefly of wheat meal bread, crushed wheat, rice, stewed fruits, baked or steamed potatoes, etc. Then he should take such exercise as will give action to the body, without fatigue.

RING WORMS.—J. H. G.—"I am troubled with tetter, or ring-worm. How shall I treat it?"

Take a wet-sheet pack daily for a week or two; eat no greasy food; purification is the remedy.

UNFERMENTED WINE FOR COMMUNION.

—**Ed. SCIENCE OF HEALTH.** Two of your subscribers who believe fully in your teachings, and

also being professed Christians, wish when partaking of the Communion, to do so, as we believe Christ did, using nothing hurtful to the physical system. As we have a plenty of grapes, we wish to make our own Communion wine, in such a way that it will keep, and still be pure, unfermented, and unadulterated.—F. E. H.

Ans. Wine or the juice of the grape can be kept unfermented for years. Peaches, tomatoes, green peas, and green corn are canned, and kept from the air, and remain sweet for years. Grape juice may be kept in the same manner. The juice should be strained nicely, run through fine sand, to take out all the pulp, then it should be canned or bottled, and kept in a cool place. Mr. Asher L. Smith, of Lebanon, Conn., manufactures an excellent article, but we do not know his process in detail. It is warmly commended by the *National Temperance Advocate*, after two years acquaintance with it, and by many Ministers of the Gospel, who have used it in their churches. We are glad to aid in driving fermented and intoxicating wines from the sacramental service; as, no doubt, many reformed men have had their appetite for liquor inflamed at the Communion service, and have gone back to their cups and to drunkenness, disgrace, and death.

SWINDLED—R. G. N.—You have been quacked by the Bible House man, and also by O. P. B., of Jersey City, whose "sands of life" should have "run out" long ago. Why not exercise common-sense, and let the quacks and swindlers alone? We cannot prescribe for you through THE SCIENCE OF HEALTH. It can only be done by post, or personal consultation.

EXPOSING FRAUDS AND SWINDLERS.—“Will you please be so kind as to let me have a small space in THE SCIENCE OF HEALTH, that I may expose two notorious swindlers, J. H. R., of New York, and A. C. G., of Syracuse, N. Y. They have swindled me, and I wish to warn others, that they may not get burnt. By the way, will you not let those know who are suffering from—, of some source by which they can obtain relief?”

We are not policemen; nor can we undertake the task of breaking up all the swindling concerns, in which “indiscreet young men” are “done”

out of their money. Be it ours to teach the people “how to live,” so that they will not be caught in such traps. Our “SPECIAL LIST” contains the information sought.

ANOTHER says he is troubled with an eruption, first on his wrists, then on back of neck, and now, the third year, it appears on the forehead.

The cause is retained effete matters in the system; remedy, pure blood and a clean skin.

COLD, COUGH, CONSUMPTION.—E. S. S. A few weeks treatment according to the Hygienic methods will put you on the track for recovery; and then, right living will do the rest.

S. H.—**CHOLERA, NEW BREAD, TEETH PLATE**—1st. How is cholera preventable, and how cured by Hygienic treatment?

2d. Is new bread, say a day old, unhealthy?

3d. What is the best plate for false teeth?

1st. For the several varieties of this disease and its proper treatment, see “The Hygienic Hand-Book.” 2d. No. 3d. Gold.

ITCHING PILES.—C. E.—The itching in your case is not caused by the pile tumors, but by fissures or superficial ulcers in the lower bowels. Apply ice-water or bits of ice, and adopt a strictly hygienic dietary, avoiding seasonings of every kind. Constipation is the cause of all the trouble.

CEREBRO-SPINAL MENINGITIS.—A. F. H.—This is a form of typhus fever, the peculiar symptoms being a more or less spotted appearance of the skin, and an inclination of the spine to curve backward in most cases. Persons of unhygienic habits and foul blood are most liable to it. Free the vessels with enemas of tepid water, sponge the whole surface with tepid water when hot, and apply fomentations to the abdomen, and bottles of hot water to the feet when the patient is chilly. Give no medicine.

CHRONIC NEURALGIA.—G. W. R.—This affection is, no doubt, the result of the “cart load of drugs” you say you have taken. Apply hot or cold applications, as the part affected is cool or warm when affected.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

TAKEN HIS WEIGHT IN DRUGS.—“When ordering a copy of THE BATH, a correspondent writing from Hot Springs, Arkansas, says: I have had a great deal of hard sickness in the last fifteen years, and have taken my weight in drugs, all to

no purpose; still I have a strong constitution, and have not been confined to my bed for the last four years. Have been salivated twice in life.

And this is the experience of nine-tenths of all the be-drugged people now only half alive. At every

change in the weather, one feels the effects of the poison in his bones. He is irritable, desponding, and ready to give up, only for the hope he has in Hygiene, to teach which is the office of *The Science of Health*.

Mrs. A. R. T. writes:—"I have been reading *The Science of Health*, and the more I read it, the better I like it. I am very anxious to have it circulated throughout this country, for I think if those ladies who spend so much money for magazines of fashion, would spend a little for *The Science of Health*, and other hygienic publications, they would not be for ever running for the doctor, and poison their loving offspring with drugs. I fear we, ourselves, would have been still in the dark, had not my husband been taken ill. We tried three of the best drug doctors in the region, but their treatment did him more harm than good, so we abandoned them, and resolved to try some other course. The Hydropathic treatment was highly recommended to us, and we commenced it, without knowing much about it. We sent for books, and found them to contain plain rules by which to administer rightly. Since we read them, we are getting along without any difficulty."

PIN-WORMS.—E. J. C. says:—"I see you regard pin-worms as scavengers; and you are right, for all I know to the contrary. But as many great men and women have told the world all they knew to be true, I can see no reason why I should keep the peace with the nasty pin-worms. So here goes for them. About four years ago, I was greatly troubled by pin-worms, and suffered much. One day I looked into Dr. Trall's Encyclopedia for more light, and thanks to that good physician, for whose old boots I even feel an interest, I ascertained that pin-worm eggs were deposited in well water, and hatched out in the stomachs of such ignoramuses as myself.

I at once held a council of war, had a regular Modoc war-dance all to myself, and from that day to this, I have boiled all the water I have used inwardly. I can give myself pin-worms any time I want them, by going to our well or hydrant for *just one drink*.

I boil the water and then set it away to cool or put ice in it. But by using ice, perhaps one might get eggs. [We guess not.]

Perhaps persons who are in *first-rate* health would not have pin-worms under any circumstances. I have a weak stomach from using the tobacco weed, and from bad food in my early life. I have been living on the hygienic plan for many years, and very *strictly* for the past year or two.

One pitcher of boiled water will last me one week, and at times two weeks. I don't drink at meals, and often not for two or three days.

I have full faith in hygiene, and believe that if lived up to for a few generations, it would even improve the breed of *the meanest hogs*, without

regard to the number of legs they might have; two or four. If any one wants immediate relief from pin-worms, let them try my plan. It will take about a week or ten days to get rid of the worms after using boiled water."

ITEMS FROM ILLINOIS.—"Friend Wells: Years gone, perhaps, you will remember, short articles with the above heading occasional appeared in the old "Water-cure Journal," as navigated by the old firm of Fowler & Wells. Aye! but that had no editor, if my memory serves me right; just like this "SCIENCE OF HEALTH;" and that's a reason I like it; and another is, it is so neat, well stitched and trimmed, just as I would have all other papers, and then the size—Octavo, I believe it is called—is so handy.

"THE WORLD MOVES." Yes, I suppose so, but how very slow. Twenty-five years ago, I thought, long ere this time, people would abandon the use of poisonous and nauseating drugs and compounds, but they don't do it. I think, 'tis said, "revolutions never go backwards." It may be so, but I am sure they go to seed, or run out.

O DEAR! I'M SICK, pain and sickness at the stomach, sleepless nights, general distress all over, no appetite, belching up sour and greasy food * * * Yes, I know it's good enough for me, I only reap as I sow, but then why do I sow such a crop, when I well know the fruits thereof? Morbid appetite, fashion, custom; must eat, hungry or not, at certain times indicated by the clock, and whatever is set before me. "Morbid appetite;" I sometimes think that, too, is a misnomer, and that we have no appetites or desires but what are legitimate, and should be gratified, fully or to satiety. If I don't take this horn of the dilemma, I am compelled to take one equally absurd, and far more shocking to my moral sense; even the impeachment of Deity, or the great controlling power of the universe, charging Him, or it, with either imbecility or injustice. But this is verging upon the boundaries of So-Meto-Theo discussions, and those mythical lands I do not feel much like trying to explore just now but must just say; that I do believe justice is done to all * *

Yes, my brother and sister, I know you are sick and suffering, and it seems to me equally a fact, or true, that I am just as sure that your pleasure, enjoyment or exhilaration, is just equal to it. You cannot know one without the other; so, then, bless God for pain, sorrow, disappointments, and in short, all that we call evil.

"THE GOOD TIME COMING." Here is another fallacy, for the good time is here now, and always has been. No age, or time, or period can be superior to another. If at one time the *light* is more brilliant, so, too, the darkness will be more intense.

HYGIENIC HOMES. Very good Institutions, no doubt, for those that are sick, and are abundantly able to pay; but somehow, they fail to meet or

supply the wants of the poor; and then, too, they are a kind of Hospital for the *cure*, not the *prevention* of disease.

But to cure a sick man or woman, and at the same time teach them so to live as to avoid sickness in the future is, perhaps, at present, the better, and it may be the only way; and this, I think, is the course pursued by the Physicians here at Riverside Water-Cure, or rather Hygienic Home. So those who favor the no "doctor-stuff" plan of treating the sick, and would like to find a home on the "father of waters," right in the heat of the great West-central for an agricultural, commercial, and manufacturing country especially, would, I think, do well to locate here, and help to develop its arts, industries and social life; plenty of room, food of all kinds abundant; almost too much, and too easy to be got for health and contentment.—Healthy?

What a question! just as if God or nature afflicted any part of the world with diseases. Only live right, and one can live almost anywhere. I guess it is tolerable healthy, I have been about here nearly forty years; still, once in a while, I am down with fever, cold, etc., and so too are my friends elsewhere as here. Yours, truly, HOMER BROWN, Hamilton, Hancock Co., Ill.

THE CHOLERA IN MEMPHIS.—R. S. N. writes:—"Ed. SCIENCE OF HEALTH. After carrying off hundreds of people here, the cholera has nearly disappeared. Only eight deaths—two white and six colored—yesterday. There has been, in the workings of this disease at this point, a striking confirmation of the doctrines inculcated in your magazine. First, those who used water from perfect cisterns, wholly eschewing water of percolation, and who used plain, well cooked food, were nearly exempt. The great mass of deaths occurred among those whose diet consisted of boiled cabbage, bacon, and such indigestible substances; in connection with water of wells, springs, or imperfect cisterns. An observation of ten years extent, has convinced me that a plain, well cooked dietary, on the plan of the consistent hygienist, will, in great measure, avoid the ills incident to this malarious climate. Temperance men, who eschew, to great extent, the Southern boiled bacon and cabbage diet, enjoy an astonishing immunity from malarious disease. I firmly believe that the dietary of any well-conducted Water-cure establishments in the North, in connection with occasional bathing, sleeping at night in no clothing worn in the day, and pure cistern water, will prove a specific against all forms of malaria."

MORE KNOWLEDGE AND LESS FAITH.—J. M. C. a Physician, says:—"I find 'THE SCIENCE OF HEALTH' and the Encyclopedia consolation, support, encouragement, advice, argument, approval, theory, reference, study, and a philosophic, common-sense assistant in the develop-

ment of my practice, that I have not found in any other publication.

There is a great deal of prejudice, superstition, bigotry, and medicine-faith-ignorance.

The chance of my reaching patients is by reason, appealing to their reason, and waking up their understanding. If they knew more about medicine, they would have less faith in it, and more in remedy.

STILL BATTERING AWAY.—Mrs. Q. A. Brockett, of Pow Pow, Mich., says:—"I write you again to renew my subscription to THE SCIENCE OF HEALTH, and let you know that I am still battering away at the old medical stronghold, (and a strong one it is too); and although my efforts are feeble, and I have but little time in my large family of eight, yet as a 'constant dropping wears the rock,' I can see that here and there persistent effort tells upon the miserable structure, whose strongest pillar is the ignorance of the people.

An old friend living three miles distant, sent for me yesterday in great haste, as her little four-year old daughter had brain fever. I found they had employed an Allopathic Physician, and were giving quinine and bismuth powders alternately. She was in a deep sleep, with very red cheeks, and difficult breathing. I read from your Hygienic Hand-Book touching the case. Sent for ice, applied it to the head as directed. Staid with her all night, and this morning she was wakeful, rational, and the doctor came and said, decidedly better. The lady said she had no confidence in his practice. She knew nothing herself, and what could she do? And then the neighbors; well, *they* think doctors made them. I sold that lady my Hand-Book, as I had another copy.

EFFECTS OF HYGIENIC LIVING.—Here is the voluntary testimony of N. P. T., one who knows by experience what he is writing about.

Alexandria, Va., June 2d, 1873.

This day completes my seventy-third year; perfectly well *all over*. No ailment, or indication of ailment anywhere, from crown of head to soles of feet. Just two years ago, *Pemphigus* (one of the most "*refractory*" of "*refractory*" skin diseases, and indicative of "*low* condition;" condition so very low, as most peremptorily to demand "*generous living*," so called by the doctors; i. e., for example, "*porter-house steak*," washed down with "*brown stout*," tipped off with a glass or two of "*good sound old sherry*," etc., etc.) This disease, I say, had complete possession of all four of my extremities; both feet, soles and ankles, and legs half way up to knees; and both hands and wrists, and arms up to elbows. At that same time, my predecessor in Mexico, (singular coincidence, especially considering the rareness of this disease) the wealthy John Slidell, was in Paris or thereabouts, suffered in the same way. *No doubt, "the faculty"* (not only of Paris, etc., etc., but of

London also) did its very best for him; and probably medical skill was backed by "generous living," to the utmost of its ability. Some months ago, he died at Brighton—so New Orleans report had it—a miserable death. Here am I, with skin as smooth as satin, able to walk miles with elastic step, on the strength of my "eccentricity" as to diet; to wit, *Grahamism* of the very strictest kind; "saw-dust" bread, so called, in contradistinction to "family flour" yeast bread, such as rational people eat; said saw-dust being eked out in its nutritive properties by vegetables and fruits. Instead of brown stout, sherry, etc., etc., pure water—water made as pure as boiling and double filtering could make it, the second filtering followed by dripping through the air. This water drunk "*to excess*," to such extreme excess as full half a gallon before breakfast, between 5 and 7 a. m. by way of "appetizer" and "blood purifier"—in the first of which two capacities, it "beats all hollow" those little birds of Lord Byron, told of in connection with the Scotchman, who, having heard of their appetizing properties, ate a dozen of them, and found his appetite not a bit the keener for it; for those two quarts (four honest pints) of Adam's ale proves always *quant. suff.* to make my Graham saw-dust quite welcome to my stomach; first of all, however, to my *palate* on its way downwards, as ever sirloin of "baked missionary" was to those of a Feejee "flesh-eater." Besides this water, a little milk now and then with my fruit. No other fluid of any kind; no stimulant of any sort, either fluid or solid; not even salt, coffee, and tea, of course, eschewed. Such is the material out of which my tissues have been able to build the muscles up anew, in the course of my seventy-second and seventy-third years.

The Library.

HUMAN LONGEVITY.—Its Facts and its Fictions, including an inquiry into some of the more remarkable instances and suggestions for testing reputed cases. Illustrated by examples. By William J. Thoms, F. S. A., Deputy Librarian House of Lords. London: John Murray, Albemarle Street; New York: Scribner, Welford & Armstrong. 12mo, cloth, pages 320. Price \$3.75.

Mr. Thoms is something of the iconoclast; he shows little tenderness for the treasured fancies of the thousands who would have it generally believed that there have been those men and women who have lived much beyond a century; he sets himself squarely and calmly to work, to investigate the facts in regard to the much vaunted cases of "Old Parr," Jenkins, the Countess of Desmond, etc., and from the mass of reports, conjectures, guesses, hearseys, extracts but little authentic testimony in favor of their great longevity. Mr. Thoms considers centenarianism a matter of very extraordinary rarity, as may be inferred from the scriptural legend in

the title of his interesting book. "The number of a man's days are at most, one hundred years," but such as have rewarded his scrutinizing search among the English and Scotch records of modern date, he mentions with much satisfaction. The cases of reputed very old people which the author sifts thoroughly of the centenarian gloze are numerous, and contribute many interesting chapters to the volume.

ENIGMAS OF LIFE.—By W. R. Greg. 12mo, cloth, pages 322. Price, \$2.00. Boston: James R. Osgood & Company.

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WHY is a screw in loose like a screw in tight?—
Because it is in-secure.

WHY are clergymen like railway-porters?—Because
they do a good deal of coupling.

A PROFESSOR, in explaining to a class of young
ladies the theory according to which the body is
entirely renewed every seven years, said:—"Thus,
Miss B., in seven years you will in reality be no longer
Miss B." "I really hope I shan't," demurely responded
the girl, casting down her eyes.

A YOUNG couple went to a clergyman noted for his
waggishness, to get married. By an innocent mistake
he began to read from the Prayer Book as follows:—
"Man that is born of woman is full of trouble, and
hath but a short time to live." The astonished bride-
groom suddenly exclaimed, "Sir, you mistake; we
came to be married." "Well," replied the clergyman,
"if you insist, I will marry you; but believe me, my
friend, you had better be buried."

"JUDY" hears that the latest feminine fashion of
wearing the front hair is known as the Skye terrier
style. Probably it is only a natural consequence of
the prevalence of this fashion that attracts the puppies

A MAN who has a red-headed sweetheart addressed
her as "Sweet Auburn, loveliest of the plain." Sweet
Auburn got mad about it. She objected to being
classed among the "plain," even though called the
loveliest of them.

AN Irish paper says that "In the absence of both
editors, the publishers have succeeded in securing the
services of a 'gentleman' to edit the paper this week."

A PLUMBER had an Irish lad in his employ, and one

day having occasion to use a piece of zinc
ordered him to get one twelve inches square. "Yea,
sir," said Pat, "twelve inches square, but how long?"

BETTER DAYS.—On a wet, miserable, foggy day in
autumn Charles Lamb was accosted by a beggar
woman. "Pray, sir, bestow a little charity upon a
poor destitute woman who is perishing for lack of
food. Believe me, sir, I have seen better days."—"So
have I," said Lamb, handing the poor creature a
shilling; so have I, it's a miserable day. Good-bye—
good-bye.

SEMINARY vs. CEMETERY.—Baillie Sawman—"Of
course I want Willie to have a guid eddycation, in fac,
I'm thinking o' sending him to the cemetry at Rothesay."
Cooncillar Troot—"The Ceemeturrie! Ah, ye'll
be wantin' him to learn the dead languages, eh?
B. S. (who does not see it)—"Of course, of coorse—
deed an' leevin."

Upon the arrival of a train, an old lady affectionately
greeted a stylish young lady as follows: "Why, how'd
you do, Mariar? Why, how funny ye look! Didn't hardly
know ye! Got your false teeth, ain't ye?" Maria
changed the subject.

SOME people have a way of accounting for every-
thing.—Florence—"My egg's quite cold! I wonder
why?" Ethel—"So's mine. Can't you guess?"
Florence—"No." Ethel—"Why, they've been boiled
in cold water, stoopid!"

A LEARNED doctor has given his opinion that tight
lacing is a public benefit, inasmuch as its tendency is
to kill off all the foolish girls, and leave the wise ones
to grow into women.

THE rage for ending female names in the French
"ie" has come to a disastrous conclusion in Oregon.
A farmer named Ake, christened his eldest girl Belle.
She, adopting the style of the Mollies, Susies and Mat-
ties of the region, got some cards printed "Bellie,"
and now appears to a distracted world as Miss Bellie
Ake.

A RED herring will keep a man dry better than an
umbrella.

TRUE to the last—The shoemaker.

MUSIC by Handel—A street organ.

HANDSOME thing in shawls—A pretty girl.

ON a very pretty girl saying to Leigh Hunt, "I am
very sad, you see," he replied, "he replied, "Oh! no;
you belong to the other Jewish sect; you are very fair,
I see!"

A HORSE-CAR driver in Chicago gave a penny over to
twenty different passengers, to try their honesty, and
nineteen of them kept the money, while the one swore
that four cents more were due him.

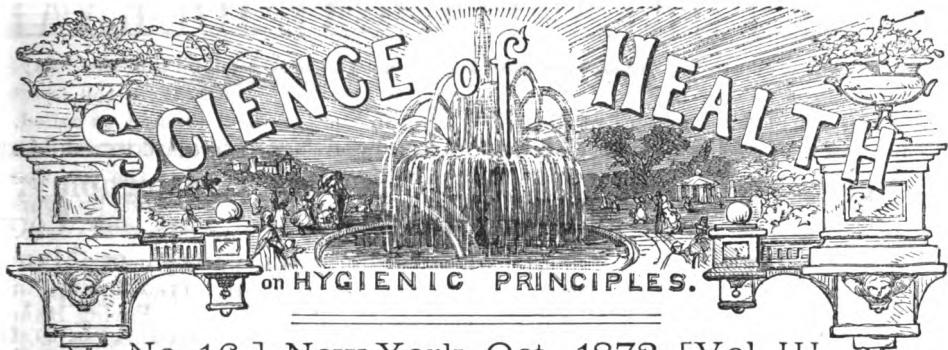
"DON'T worry yourself about my going away, my
darling. Absence, you know, makes the heart grow
fonder." "Of somebody else," added the darling.

A MAN much addicted to snoring remarked to his
bedfellow in the morning that he slept "like a top."
"I know it," said the other, "like a humming top."

IN a smal' New England town a druggist was sur-
prised and disturbed to receive at the hands of a dirty
looking customer the following prescription: "Please
give thebara sumphin to fisich him fifteen cts. worth.

WHY is a prudent man like a pin? Because his head
prevents him going too far.

THE first law of gravity—Never to laugh at your own
jokes.



No. 16.] New York, Oct., 1873. [Vol. III.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET, BATHING, SLEEP, EXERCISE AND REST.

DISEASE AND ITS TREATMENT.—No. 8.

BY ROBERT WALTER, M.D.

How Sick Persons are Cured.

THAT sick persons do get well is a fact that will not be disputed by any; but how they get well is the important question for us now to discuss, *not how diseases are cured*. This point we will discuss at another time; but how sick persons are restored to health is our subject.

Reason would seem to indicate that the same power, nature, that brought us into being and keeps us in health would also restore us to health if, from any unfortunate circumstances, we get sick. "Nobody doubts that this is the case in visible diseases—surgery, so-called," says Prof. Samuel J. Armor, M.D., of the Long Island College Hospital, in a speech reported in the "New York Medical Journal" for January, 1873.

Here, then, we have a principle generalized from *universal* experience, and doubted by none, as to the healing of sick persons, *where the causes of the disease are obvious, and the method of healing susceptible of ocular demonstration*. This principle is, by virtue of its being a principle, applicable in all similar cases. If nature cures the case that is visible, and nothing else will cure it, we have the best reasons for saying, in the absence of contradictory testimony, that nature, and nothing else, cures all cases.

But here we are met with an exception. Though medicines do not cure in

the cases that are visible, it is claimed that they do nevertheless cure in the invisible, occult, and mysterious ones. We ask for the proof. What reason have we for believing that medicines ever restore sick persons to health? Is it because it is their nature to do so? Do physicians ever attempt seriously to prove their curative properties by a reference to general principles?

We believe they make no pretence to do so, but rest their case entirely on the facts of experience. Certainly they refuse to apply scientific rules to the verification of the truth. Broussais, for instance, denies the applicability of certain scientific rules to the testing of medicines, because *the facts oppose science*. Bleeding, he declares, is well known to cure inflammation, no matter what science shall say. But, then, Broussais wrote fifty years ago, and was not aware that his successors would discover that this *fact*, which he considered of sufficient weight to overthrow the applicability of the rules of science to medicine, was *not a fact at all*, and that they now employ the very opposite treatment, stimulation, which he would have considered murderous.

In the face of all history and all science, how much is such experience worth? Let Prof. Samuel J. Armor, before quoted, speak. He says:

"The study of therapeutics is beset

with many difficulties, none of which are more prominent than our want of knowledge of the natural history of disease. The bearing of this upon our therapeutic reasoning must be at once apparent. Usually we see but one side of the question, and find it difficult, therefore, to form a proper estimate of what belongs to nature and what to art. Drugs are administered, patients recover, and we suppose we have cured them, whereas our remedies may have had little or nothing to do with their recovery. Very likely it took place in spite of our drugs. We have no distinct instruction in the natural history of disease (I mean uninfluenced by drugs), nor have we any field for observation. Call to mind, if you can, a single instance in which you watched the course, progress, and termination of a disease uninfluenced by remedies of some kind."

Here is a Confession, true in every particular, except in the statement that we "have no field for observation." That of itself is sufficient to overthrow every shadow of argument in favor of the curative power of drugs, as far as this is based upon experience. The experience of medical men as to the power of drugs to cure is precisely like that of the Chinaman with regard to the power of the gong to drive away the eclipse. The great dragon approaches to swallow the sun. He partly encloses it between his jaws, and the frightened Chinamen, to save it, bring out their gongs and kettles, and make with them most unearthly noises; and lo! the dragon always retires. In this case the Chinaman has four times as good reasons for believing that his gongs save the sun, that the physician has that his medicines save the patient; for the gong always succeeds, while the medicines fail more than half the time.

Medical men ought to know that experience is worse than useless, unless sustained by rigid experiment, pro and con, or by established and unvarying scientific principles. There is an immense difference between a *sequence* and a *consequence*, as the world apparently

has yet to learn. Medical science to-day, with regard to diseases, is in the exact position that medical science, so called, was 240 years ago with regard to wounds.

Previous to the year 1836, the practice of cauterizing gun-shot wounds by pouring into them boiling oil was in vogue. At that time a physician named Paré was employed in the French army in Provence. A great battle having been fought, and large numbers wounded, Paré, in dismay, found that his boiling oil was soon exhausted, and more could not be obtained for a long time. He expected the most woful results to follow to the thousands of uncauterized wounded soldiers. What was his astonishment on finding the next day that the soldiers who had not been treated scientifically were much better off than those who had been treated after the approved plan. (See "New American Cyclopedia.")

Paré believed in boiling oil in spite of science. He knew too much to allow any bad logic or any plausible theories to rob him of stubborn facts. His experience was worth all the science of Christendom. Hence, if any man had suggested the impropriety of this treatment, he would, undoubtedly, have been laughed at as a fanatic, or derided as a fool; or, if he persisted, persecuted as an enemy.

The fifty thousand drug-physicians in this country all claim to be scientific men; and yet, like Paré, refuse to recognize the very first principles of science in their investigations and conclusions regarding medical subjects. The healing of sick people is an *effect* depending upon some *cause*, and what that cause is, is of the most vital importance to humanity—of infinitely more consequence than to know whether or not boiling oil was good treatment for wounds.

Now, science has laid down imperative and absolutely correct rules, by which cause and effect may be respectively determined. We propose now to apply these rules to the discovery of the causes that cure sick people.

Sir John Herschell, in his "Discourses

on the Study of Natural Philosophy," points out the scientific method of determining clearly this question. Whenever two facts bear to each other the relation of cause and effect, there will always be found between them:

- 1st. "Invariable Connection."
- 2d. "Invariable negation of the effect with absence of the cause;" and,
- 3d. "Increase or diminution of the effect with increased or diminished intensity of cause."

These are the only common-sense methods, and such as every scientist employs. Let us carefully apply them to the subject in hand.

First. "*Invariable Connection.*" Does the supposed effect, good health, invariably follow the application of the supposed cause, medicines? Or do medicines invariably precede the supposed effect, convalescence or good health? Of course not. Then invariable connection does not exist; and, consequently, medicines either do not cure sick people, or Sir John Herschell, Lord Bacon, and scientists everywhere, are wrong in their methods of tracing cause and effect. On the contrary, where one man gets well who takes medicine, one hundred die taking it; so that, as far as the fact goes to prove anything, it proves that medicines kill.

Second. *Invariable negation of the effect with the absence of the cause.* Do sick people always fail to get well when medicines are not employed? This is a question that seemed to admit of more dispute a hundred years ago than it does to-day. The idea of being restored to health without the use of medicines was once regarded as utopian, but to-day it is demonstrated to be feasible. There are scores of physicians in this country who treat all kinds of diseases without medicines with unparalleled success; and there are many institutions that have grown to riches and prosperity, treating patients by the hundreds every year without a particle of medicine whatever. Every form of disease that is curable at all, is treated by them with a success as two to one against medicines.

Thus we see the great mistake of Dr. Armor in saying, "Nor have we any field for observation." He is either not very candid, or he is very ignorant of matters of public notoriety. These physicians and institutions offer the amplest opportunity for investigation, both of their methods of practice and the results thereof. Many years' experience of my own enables me to testify that the great majority who seek treatment at these places have done so only after years of trial of the standard medicines of various kinds. Their almost universal testimony has been that, while taking drugs, they gradually failed; until many, myself among the number, were on the verge of the grave, and supposed to be beyond hope. We foolishly took the medicines because we believed in the honor, learning and skill of our physicians, and because their medicines *seemed* to give relief for the time.

Hence, when tested scientifically, it appears that medicines not only *do not cure sick people*, but rather make them more sick, and if persisted in, finally kill them. The opportunity for both observation and experiment is open to all. We challenge investigation.

Third. *Increase or diminution of effect, with increased or diminished intensity of cause.* How will this principle apply to medication? If medicines cure sick folks, the more vigorous the application the more certain will the patient get well—the more physicians we have, the more vigorous their treatment, the less sick people there will be; and *vice versa*.

Do sick people decrease as doctors increase? Who will make such a declaration? Old Dr. Abernethy, of London, is credited with saying: "There has been a great increase of medical men of late; and, upon my word, diseases have increased accordingly." This is a fact that cannot be disputed.

These United States have a world-wide reputation for two things—increased ease of obtaining medical aid, and a remarkable increase of diseases of a chronic nature. When the country was new, the people poor, and doctors scarce, we

had much less mortality and disease than now; and to-day, if we compare the health of the cities which have doctors on every street, with that of the country, where they are less numerous, we find a remarkable difference.

All these facts mean something. Medicines either cure or they do not. If they do, diseases should decrease as medicines and physicians increase; but if sick people increase as doctors and medicines increase, there is certainly something wrong.

Then look at the modes of treatment. If medicines are the healing agents, the Allopath, who uses twenty times the quantity the Homœopath does, should be much more successful. The facts are exactly the other way. The less medicine the surer the cure, is a fact generally acquiesced in, which can only be explained on the ground that medicines do not cure sick people at all.

The reader may think me fanciful in testing medical science, so-called, in this manner; but I would remind him that the tests are of nature's provision. No man disputes these rules in the matter-of-fact concerns of life; but, sad it is to say, that the theories of the *medical systems* are not matter-of-fact, but of fancy; are not amenable to scientific rules because they are not scientific; will not bear sound logic because they are both illogical and nonsensical; and, finally, will crumble under the slightest touch, as far as system is concerned—because they are rotten from centre to circumference, false from foundation to roof, and as airy as the imaginations of the veriest castle-builder.

In our next article, we will apply unflinchingly these same rigid rules to the new theory of disease and the true method of cure, and leave the reader to judge.

HOW TO CLOTHE THE BABIES.

THAT babies, as well as grown people, should be clothed in a physiological manner, no one can deny; yet how very little attention is paid to this important subject. People have an idea that if a child's clothing is kept clean, and looks nicely, this is all that is required. I would by no means underrate neatness and cleanliness; but to them I should add comfort and health, two things which are often, indeed generally, left out of consideration in the dressing of children.

Let us glance for a moment at the clothing of "the infant of the period." First in order, in the dressing of the young infant, comes the inevitable bandage, or "roller;" this is commonly made of flannel, wrapped twice around the body, and pinned so tightly that it is absolutely impossible for the child to use properly the abdominal muscles in breathing. For the first few weeks of a child's life, breathing and crying are almost the only exercises it is able to indulge in; and every garment should be loose enough to admit of free intercostal and

abdominal muscular action. But as baby's clothes are worn, we have quite the reverse of this. The bandage above referred to so compresses the walls of the abdomen, as to prevent lateral expansion; and whenever the infant cries, the intestines are pushed down into the pelvis, not unfrequently causing infantile hernia; for, at this early age, the opening to the inguinal canal is often only partially closed, and it requires but little force to cause the bowel to protrude. A case came under my observation a short time ago; the infant, from the time of its birth, cried a great deal, and the more it protested the tighter it was bound, until actual rupture took place. The child is now several years old, he has not fully recovered, and will probably remain weak in that region through life. But nurse says, "baby must be pinned up tight, to hold him together," fine logic that! Nature never turns work off her hands done up in that sluggish style.

The next piece to be considered is the diaper, and a more uncomfortable article

could not be well imagined. It is generally made of cotton flannel, doubled twice, making four thicknesses of this hot material, which is pinned tightly round the pelvis. Add to the above a thin rubber article, now in our market, which is used by some, and see what we have. No wonder so many children have prolapsed bowels, and inflammation generally, in that delicate region. Only think of it, mothers! for two long years this heating process is kept up, day and night, without intermission! Suppose you bound the child's head or lungs up in the same way, and for the same length of time, what do you think the consequence would be? You would probably injure those organs for life, if indeed the child survived the treatment.

Next in order in our little toilet, comes "baby's shirt," a little scrap of very fine linen, which, considering its scanty dimensions, is for all ends and purposes a consummate nuisance. Then comes the flannel skirts, nicely plaited or gathered on to a cotton band, which has also to be pinned round the body, under the arms, so that every time baby is tossed around, the skirt is dragged down over the abdomen, thus adding another binder to the already over-bound parts. Last comes the dress, made of some thin material, with or without sleeves, according to the fashion of the times, or taste of the mother, who very rarely knows anything about physiology, and if she did, would be indifferent to its laws, rather than have her child look just like other people's babies. We have, then, as you see, arms and chest relatively bare, while just below is the petticoat band above referred to; and just below that comes the thick hot plaits of flannel over the little pelvis. In this manner the blood is drawn by overheating the vital parts, and kept there; while it is driven away from the tiny hands and arms, leaving them blue and cold, every time the infant is exposed to the air. This is a bad state of things; and it would not exist, if mothers were fully aware of the ills which this mode of dressing entails upon their offspring in after-years. If

vitality once lost can never be regained, what can we say of the condition of these little ones, whose mothers have been lavishly wasting it year by year, instead of husbanding from the very commencement of their little lives? Many a mother worries her life out with a fretful baby, when the whole cause lies in the uncomfortable style of dress which it is compelled to wear. Could children, when they grow up, only remember how they felt in their "swaddling bands," I venture to say, that long ere this, a society would have been formed, protesting against cruelty to infants.

The clothing of a little child, as well as that of a grown person, should in the first place, be made loose enough to allow of the free use of all the muscles. Not only that, but every portion of the body should be covered *evenly*; there should be as many thicknesses on the arms and chest as there are on any other part. As respects the bandaging of an infant, all that is needed is a piece of thin, soft muslin, to be worn loosely round the body, for the first week or so, until the umbilicus heals. The under-garments should be made of soft cotton material, instead of flannel, as this is very apt to irritate, and chafe the tender skin; and is one great cause of "gum rash," which is so annoying to both mother and child. A little waist should be made with long sleeves, and high neck, with a deep hem round the bottom, and buttons for fastening the skirt to. This latter should be made of the same material, gored perfectly plain, with a narrow band, or hem, around the top, in which to work the button holes. Such an arrangement allows the skirt to be removed, without having to undress the child; and it also does away with the pinning business, which every mother knows is a great nuisance; and baby knows by sad experience, if it could only tell, how uncomfortable it is to be lacerated every now and then, by the working out of an ugly pin. In hot weather, the above garment, with a gored dress, made with high neck, and long sleeves, is all that is required. In cooler

weather, a flannel suit should be worn between the two; made the same as the outside dress, and buttoned down the front. Children as a general thing are kept too warm. After dressing them they are often wrapped in a thick shawl, and placed in the warm bed beside the mother, face and all under cover, with not even a little hole to breathe through. Here it remains for hours, breathing over and over again the air laden with the exhalations from its own body, and that of the mother's. It is also very common to allow the child to sleep in the same clothes it wears in daytime. This is all wrong; little folks, as well as big ones, should change all their clothes before going to bed, taking care to hang up for a good airing the ones they take off.

Every mother ought to be perfectly familiar with the science of physiology.

In the absence of such knowledge, the next best thing would be one term at the Hygeio-Therapeutic College, where she would learn how to take care of both mother and child. Should this be impossible, then the second best thing would be to subscribe for, and read *THE SCIENCE OF HEALTH*, in which she would find much valuable information on all these subjects. The knowledge gained therefrom would not only save the doctor's bills, but also many anxious hours; and, what is of far greater moment, might perhaps be the means of saving the child's life. For, in the absence of knowledge the mothers run to the doctors, and, the next thing is a dose of poison, a very small amount of which not unfrequently calls for the services of the undertaker.

MARY DODDS, M. D.

TWO SIDES TO A QUESTION.

WILL our readers peruse the following contrast between the practices of Savage and Civilized Nations, in respect to dress and physical training, and render a verdict according to the facts?

THE SAVAGE.

In the Valley of the Nile, the idea of beauty is immoderate fatness; and the common practice of fattening princesses, is whipping them into drinking great quantities of milk.—*Captain Grant*.

I saw a daughter of the king sucking at a milk-pot, while her father kept her at work by holding a rod in his hand.—*Speke*.

Throughout the interior of Africa, and, indeed in some parts of Asia, a woman is prized for fatness. When a young woman is betrothed, she is cooped up in a small room, with gold shackles on her ankles. If her proprietor has lost a wife by death, or divorced one, their anklets are sent forward for the new matrimonial candidate. When she has attained a desired size, indicated by filling the pattern rings, she is carried in triumph to her new home. The preparation of food that actually produces that coveted

dimension—a mountain of fatness—is called *drough*, made of the seeds of a vegetable peculiar to the country. Some positively die from an excessive fatness, in an effort to surpass in that bewitching accomplishment, rival candidates for matrimonial positions. These famous mortals are not the poor girls; they are the higher orders in society, and, therefore, are ambitious of securing an elevated position, with a rich husband.—*Colonel Keating's Travels*.

CIVILIZED.

In civilized nations, a slimness of figure is considered desirable, and accordingly, we find that the aims of the young women are directed in that direction. A very sparing diet has always been one great aid to the operations of the corset.—*The Corset and the Crinoline*.

In my case, I can only say, I suffered perfect tortures from my stays, especially after dinner; not that I ate heartily, for that I found impossible, even if we had been allowed to do so by our school-mistress.—“*Young Lady*,” in *Englishwoman's Magazine*, for March, 1867.

Several instances of growing girls being made to wear their corsets, by night,

as well as day, have lately come to my knowledge, and I am acquainted with more than one fashionable school in London, where the practice is made a rule of the establishment.—*Madame La Sante.*

I was placed, at the age of fifteen, at a fashionable school in London; and there it was the custom for the waists of the pupils to be reduced one inch per month, until they were what the lady principal considered small enough. When I left school at seventeen, my waist measured only thirteen inches, it having been formerly twenty-three inches in circumference. Every morning one of the maids used to come to assist us to dress, and a governess superintended to see that our corsets were drawn as tight as possible. One girl in the school was stout and largely built, and two strong maids were obliged to use their utmost force to make her waist the size ordered by the principal—viz., seventeen inches—and she fainted twice while the stays were being made to meet.—“*Nora*,” in the *Englishwoman’s Magazine*, for May, 1867.

SAVAGE.

The red clay, called *ampo*, is eaten by the women of Java, in order that they may become slim; want of plumpness being considered a kind of beauty in that country.—*Humboldt.*

CIVILIZED.

Vinegar is consumed in large quantities by many of our young ladies, to reduce their flesh and produce a fashionable paleness, and this practice is attended with the worst results to the health, the liver being the organ that suffers most.

SAVAGE.

The shoe of a Chinese lady measures about $3\frac{1}{2}$ inches in length, from the heel to the toe. Among the Chinese, all young girls of the better classes are crippled by a tyrant custom. In early infancy the feet are tightly bound, the four small toes being tucked under the sole, of which, after a time, they become a part, and the heel is brought forward. The process is at length complete; stumps

have been substituted for the ordinary pedal extremities, and the Chinese lady totters on her goats’ feet.—“*China*,” in the *Encyclopaedia Britannica*.

CIVILIZED.

The fashionable young lady appears to have taken the hoof of Pan, as a pattern to which her feet are to be made to conform.—*Saturday Review.*

The high-heeled boot, of the modern fashionable dame brings its own punishment with it. The weight of the body is thrown upon the toes, which are forced together in part of the boot all together too small for their accommodation, and the chiropodist reaps a fortune in ministering to the corn-covered, distorted feet of the lady of fashion.—*Diseases of the Feet*. London.

SAVAGE.

The Feejees bore the lobe of the ear, and distend the hole.—*American Cyclopaedia*.

CIVILIZED.

Ear-rings are at present worn very long, jet being very fashionable.—*Le Follet.*

Note by the Compiler.—In the words of Bret Harte, is “civilization played out”? Or, has the Caucasian any right to brag about his (and her) customs being superior to those of savage nations?

A BATH IN HOT SAND is the latest discovery offered by a therapeutist of London, as an “infallible cure” for rheumatism. He claims that the advantage of this mode of treatment consists, especially, in the fact that it does not suppress perspiration like the hot water bath, but rather increases it; and another advantage it possesses, is that it does not interfere with the respiration of the patient, as doth the steam bath or Turkish bath. It is asserted that the body can endure the influence of such a bath for a much longer time, and a much higher temperature can also be applied. It can be used for infants, and permits of easy application to a part or to the whole body. If this remedy shall prove efficacious for so serious an ailment, it will indeed be a boon to a large class of sufferers.

THERE are but two breweries and only one distillery in the State of Maine. This is another illustration of “failure” under the Maine Law. A year or two more of its enforcement, and these three breathing-holes will also be failures.

NEW TURKISH BATH.

WE copy the following from the *Scientific American*. The Turkish bath, as commonly practiced, consists in placing the patient in an apartment heated by stove or pipes to a temperature of 110° to 120°; in a short time, as soon as the pores begin to open, the patient passes into a still hotter chamber, where there is a temperature of from 150° to 210°. Here he remains until profuse perspiration is induced, and then, if he desires, enters a room heated still higher. He then passes into a wash room having a

completely round in a space little more than its own length. B, the frame and spring mattrasses fitted with centres to the carriage A, and forming the bottom of bath. C, enamelled metal cover, hinged to the frame B, forming chamber for heated air. D, waterproof and airtight apron to prevent escape of heated air at the top of the bath. E, cistern for shower bath. F, pillow, with hinged head board to turn up when the bath is not in use. G, rack and pinion for raising or lowering the bath to the level of a bed, for use of an invalid. H, heating apparatus.

This invention is designed to supply to the public a portable Turkish bath in a complete and simple form. The advantages of the patent over the ordinary public Turkish bath are these: The heat can be raised in less than ten minutes to 180° Fah., and to the full temperature of 220° Fah. in fifteen minutes. The heat is obtained from gas, spirit, or other suitable means; it is under perfect control, and can be maintained at any degree, up to 220° Fah., that may be required. A shower bath is

attached, by means of which a copious discharge of tepid or cold water can be obtained, suddenly or gradually, at the pleasure of the bather or attendant.

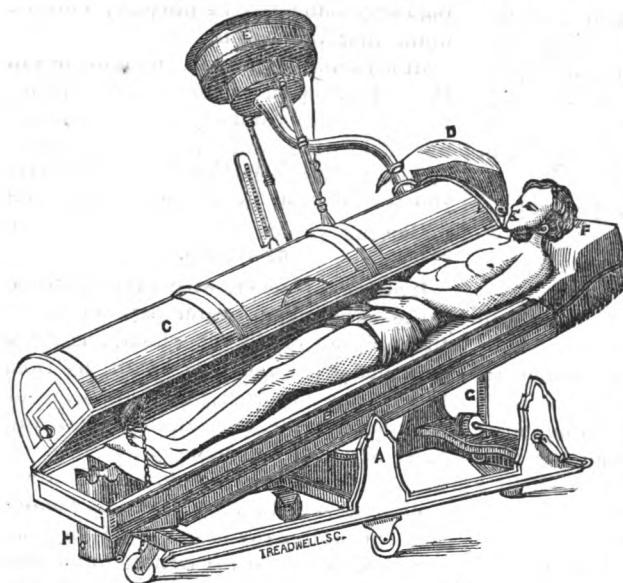
The head may, if required, be kept out of the bath in cool air. The bath offers in this respect one of the advantages of the sand bath, in which the entire body, with the exception of the head, is covered. It is probable that the therapeutic effects of the bath, with and without the exposure of the head to the heated air, may be very different.

THE SICK.—There are in the United States 1,360,000 constantly sick, or twenty-four to each physician.

reduced temperature, is washed with warm water, then cooled with the spray bath; he then plunges into a swimming bath at the ordinary atmospheric temperature, which completes the ablutions.

The Turkish bath has one discomfort, to wit, the highly heated atmosphere of the perspiring chambers. This is very oppressive to many persons; and to provide a portable bath, as well as to overcome the difficulty just mentioned, is the object of the present improvement, made public in the British *Medical Journal*:

A is the carriage upon which the bath rests, the wheels of which are so arranged that the whole apparatus can be turned



ILL HEALTH OF TEACHERS; OR, RUBY'S EXPERIENCE.

BY EMMA MAY BUCKINGHAM.

IN a recent Number of *THE SCIENCE OF HEALTH*, I noticed an article entitled, "Health of Teachers." In it, the author stated that teachers, as a class, laced more tightly than other working women ; also, that they were generally ignorant of the laws of Physiology and Hygiene.

The author will pardon me for saying that I do not indorse his views as to the cause of ill-health, for many of our most thoroughly educated instructors of youth are the greatest sufferers. Again, I do not believe that they lace more tightly than the army of mantua-makers, milliners, and clerks, in our fancy stores and dry-goods establishments, and the latter are far more robust and healthful than teachers.

In your January number you say :— "Teachers, as a class, ought to be models of health, but the average fact is quite otherwise," and in the same article, aver that "teachers should be examined and certified as to their health and hygienic habits, as much as in their scholastic attainments."

Granted ; but, suppose a young lady's qualifications and habits stand the test, and this model of a "sound mind in a sound body" enters the school-room, and after only a brief period, becomes a perfect wreck, what then ? May we not infer that the vocation is in itself hurtful, or else that there is something wrong in her surroundings ? You think that "boarding around" sows the seeds of dyspepsia, but suppose the lady in question still boards at home—as hundreds of our teachers do—and that her dietary habits have undergone no change since she commenced her school labors,—to what cause shall we attribute her dyspepsia and nervous debility ? Why is it that the percentage of broken-down-teachers is greater—considering the limited number in the field—among males than females? Surely, *tight lacing* cannot be the cause of so much misery in this case, for men do not wear corsets.

I know men who once possessed fine physical organisms, and enjoyed perfect health, who, after a few years, broke down completely, and left the ranks long before their female assistants showed any indications of failing health. As these gentlemen did not *board around*, and they *taught Physiology*,—it certainly was not ignorance of the laws of hygiene which left them victims of neuralgia, dyspepsia or throat ail, neither was it loss of sleep or brain labor, for they had been regularly educated before they entered upon their profession.

In my humble opinion, the fault lies in the construction of our school-edifices, in our low walls and ceilings, in the manner of heating said buildings, in their crowded class-rooms, and imperfect *ventilation*, as well as the vile odors and malarious vapors which will creep in from filthy yards and out-buildings.

Imagine a teacher, with ever so strong lungs, inhaling, day after day, for years, the noisome, fetid air which has been breathed over and over again, by from fifty to one hundred pupils, very few of whom ever bathe, or clean their teeth and most of whom, are more or less affected with colds, catarrhs, scrofula, and cutaneous diseases—then one can not wonder that she, and many of her pupils become invalids, or that she is irritable and fretful, and the children disobedient and indolent. Science teaches us that impure air will fall to the lower part of a room; also, that warm air will ascend; therefore it requires other ventilators besides windows to render a room healthful. Nineteenths of our class-rooms are defective in this respect, having no mode of ventilation except by letting down the windows, or raising them a few inches, and it stands to reason, that poisonous air cannot escape in this manner.

It is a patent truth that our master-builders do not understand the science of architecture sufficiently well to enable them to construct churches, and other public buildings, in such a manner that

they may have "a regular uninterrupted circulation, without draughts or sudden changes of temperature."

In order to illustrate my subject more clearly, allow me to record, in this paper, a visit which I made to a young lady, a year ago, in —— city. She had been teaching in one of the ward schools for about a year, but still boarded at home.

Mrs. Homefield, who was an illiterate but well-meaning woman, met me at the door and said :—

"Ruby is lying down, poor child, trying to rest her over-taxed nerves a little. The fact is, she has enjoyed (?) very poor health ever since she went into that horrid school."

"I am very sorry to hear that, madam, for your daughter was the very picture of health when I saw her last June, at our Teachers' Convention. I used to envy her her full rosy cheeks and plump form."

"Well, it's the school that has killed her. She has wasted to a shadow, and lost her voice almost—you remember how she loved to sing—and her throat and chest are sore all the while. She has a bad cough too, and I am afraid she will have *information* of the lungs." ("Pity some people cannot have it on the *brain*," I thought wickedly.) "She is so nervous, too, that she can't bear to hear the clock tick. Sometimes I fear she will be crazy. Her head aches all the time, too. I tell you that school is killing her!" "That is sad. Does she study out of school hours?" "Mercy, no! the poor thing goes right to bed the minute she comes home. She is so perfectly exhausted that I have to carry her a cup of strong coffee before she can even rise and dress in the morning. No, do not leave without seeing her! I will go and hurry her up, if you will excuse me."

While waiting for her appearance, I could not help wondering what had wrought such ruin in this formerly robust, finely-proportioned young lady. My own experience had been so different; for, although I was so feeble in childhood that none of my friends had supposed

that I would reach womanhood, the wear and tear of ten years' teaching and incessant study had braced and strengthened my entire system, while my mental faculties were the keener for such constant use.

At that moment Ruby Homefield crept languidly into the parlor, and held out her limp, white fingers in a lifeless manner, then sank heavily into a chair.

Her mother was right. She had faded fearfully. Her once dimpled, blooming cheeks were thin and sallow, her lips wore a purplish hue, and her nervous cough and lifeless mien told me that she had indeed become a mere wreck.

"How is it that I see *you* looking so well and cheerful at the close of your year's labors? You told me in your last letter that *you* had read about every new book and magazine, besides continuing a course of scientific and historical research. Added to this, one of your literary friends informed me that *you* had composed and copied at least a ream of manuscript, during the past twelve months; to say nothing of giving private lessons to a large class in drawing and painting. Why, you do more *out of school* than I do in the entire day. What is that keeps you from 'breaking down'? And how do you manage to govern your pupils so easily?"

"I try to make them in love with their studies, and keep them constantly employed—this, to my mind, is the secret of good government, Ruby, as it leaves but little margin for mischief or disorder."

"Well, before you leave the city, you must visit my Pandemonium, and see what a hard time I am having. Why, I think, sometimes that I shall fall dead at my desk from very weariness." I told her I would do so, at the same time thinking that I would sift the matter to the bottom, for I was determined to solve the problem of her unsuccess, if possible.

I visited her department a few days later, and, although it was a beautiful June morning, found a coal fire in the stove and every window closed tightly. The teacher sat near her desk, wrapped

in a heavy shawl, yet the room was so hot and stifling, that I involuntarily glanced at the thermometer. It indicated 80°.

There were seventy-five children present. Was it a wonder the utmost restlessness and inattention prevailed in that terrible atmosphere? There was sufficient carbonic acid gas in the room to asphyxiate the entire school, and worse than all, the stove door was open and the gas escaping.

Miss Homefield endeavored to hear a recitation in Mental Arithmetic, but it was a failure. Her class was in such a state of rebellion that it was impossible to awaken an interest in their lesson. When the bell rang for recess, I ventured to remark :—

"The air seems very foul here; with your permission I will throw open the windows."

"Does it? I did not notice it—there is no way to ventilate this room except opening the door and windows. If I do that, the children complain of cold, or their parents send me word that I must change their seats, as they cannot sit in the draught," she answered.

"Still, Ruby, my dear friend, if you wish to preserve your own life and maintain order in school, you *must* keep a constant current of pure air stirring through your class-room. I tell you, this close, deadening mephitic has already poisoned your whole system; is the chief cause of your nervousness.

"Believe me, there is nothing so demoralizing to a school, so conducive to ill temper, to restlessness, to disobedience, to dulness, or such a hindrance to all mental efforts, or to good discipline, as carbonic-acid gas. Just try my recipe, and see if your health and spirits do not improve—if your pupils are not more quiet and studious."

"Thanks; I will do so, and write you the result."

As I walked homeward, I met one of the trustees, the Rev. Dr. Wilkes, and mentioned my call at the Graded School. He shrugged his shoulders and observed:

"A place that *I* rarely visit. The truth

is, those rooms are so badly ventilated that it makes me sick to remain in one of them ten minutes. Although I am one of the Board of Education, I dislike the duties of 'School Visitor' above all unpleasant things. Why, the teachers all look as if just recovering from the typhoid fever. Something ought to be done; I, alone, am powerless to effect the desired reformation."

"And yet, you condemn your children to six mortal hours a day, for eight or ten years, to that modern 'Black Hole of Calcutta'; that is if they *live* that long, I could not help saying as I passed on."

A few days ago, I received a call from Miss Ruby Homefield. She came flying into my room with such sparkling eyes and carnation cheeks, that I could not help exclaiming :—

"It is not possible that this is my die-away, spiritless friend of one year agone!"

"No! not *that* miserable, ghostly-looking creature, but it is almost her old, happy, healthy self again;" she laughingly answered, as she half smothered me with kisses; then added : "You see I followed your invaluable recipe to the letter. At first, I kept open windows, and when I found that I could breathe and talk easier, had a ventilator put in my floor, and another over the door, at my own expense. Then, instead of lying down after school, I took vigorous walks in the open air, and discarded coffee altogether."

"Did you see any change in your pupils' deportment?"

"Yes, from the very first. As I grew patient, they seemed to become quieter and more studious. Believe me, I would not wish for a better school than I have now. But, how shall I ever pay you for saving me, if not from an untimely grave, from becoming a life-long invalid?"

"By remaining as rosy and cheerful as you are now, while you continue to practice your profession."

"Thank you, I am not likely to adorn the profession but a short time however, as our principal has just asked me to take a school *for life*—and my business in this city is to purchase an outfit."

And now, Mr. Editor, allow me to quote once more from your January number.—“The vocation of teaching is eminently healthful.”

It may be, and I think it is, all one's surroundings being equal; but, under the present mode of architecture, it is more deadly to nerve life and brain-health, more destructive to life itself than pearl diving, or the manufacture of arsenicum.

The laboratory of the toxicologist is

not more poisonous than the majority of our public school-rooms. It is possible that you are correct in saying:—“It is out of the school that teachers lay aside their exemplary morals and manners, and indulge in health-destroying habits;” but it is clear to my mind, that the insidious foe to “a sound body and mind” which I have named—saps the very springs of life, and slowly but surely, leads hundreds of teachers to a premature grave.

“SOVEREIGN REMEDIES.”

BY F. M. GREEN.

“It is wonderful!” Such was my exclamation as I ceased the perusal of the long list of “sovereign balms” which “ye local” of my well-read daily paper had grouped together.

I said, “There is no need of any more sickness in this world.” No more consumption, nor corns, nor worms, nor catarrhs, nor back-aches, nor internal derangements of any kind, will trouble longer, for the “sovereign balm” has passed the sentence of eternal banishment upon all such tormentors of our race.

But how people do delight to take the “sovereign remedies.” The “Vermifuge” is most delicious, and “Cod-liver Oil” produces the very superlative of delight. “Brandreth’s Pills” are equal to a warranty deed that joy will come in the morning.

In spite of ourselves we cannot help thinking, “all of this is very wonderful.” It will surprise many of my readers, no doubt, to learn that, notwithstanding all the sneers, and frowns, and logic of men who “think they know,” the number of superstitious remedies now in use “against the ills which flesh is heir to” is very great.

I wish to call attention to a few of these. Perhaps there is no affliction which people dread more than the ague, or “shakes,” as it is sometimes called. Every tooth utters its protest against the thing. A “sovereign balm” for it

is found in the following remedy: Take a spider, the larger the better, envelop it with a coating of dough or preserved fruit, and then swallow the bolus. Its virtue is said to be very great. The inhabitants of St. Patrick’s Land are great believers in it. They use it, I am informed, to the present day. But if this dose does not lay out the “shakes,” there is another prescription which, if followed carefully, undoubtedly will. It consists in eating a large slice of bread, on which candle snuff has been spread with butter and molasses, the whole to be washed down with water at the nearest church font. One thing is certain of the use of these remedies, “if they don’t do any good they won’t do any harm.” So my grandmother used to say.

“The rheumatiks” will whistle behind the old mill if one will only wear a buck-skin shirt fitted tight and put on while wet, and worn till it is dry. An amulet made of a piece of mountain ash or the foot of a rabbit can be worn if the first remedy fails.

The Shetlanders cure burns and scalds by breathing three times on the sore, and repeating each time:

“Here comes I to cure a burnt sore;
If the dead knew what the living endure,
The burnt sore would burn no more.”

If that don’t prove successful, the following will:

“An angel came from the north,
And he brought cold and frost;

An angel came from the south,
And he brought heat and fire;
The angel from the north
"put out the fire."

To cure fits, great faith used to be placed in rings made from silver coin and voluntarily given to the afflicted person by acquaintances of the opposite sex. When this "balm" fails, then the only remedy is to send to the old doctor whose very nose is an emblem of the truth that he is "death on fits."

Sir Kenelm Digby, M.D., in 1668, in his work called "Choice and Experimental Receipts in Physick and Chirurgery," gives "A sympathetic cure for the tooth-ache." It is as follows: "With an iron nail raise and cut the gum from about the tooth till it bleed, and that some of the blood stick upon the nail; then drive it into a wooden beam up to the head; after this is done, you shall never have the tooth-ache in all your life." This remedy admits of no failure wherever it has been thoroughly tried, the doctor's directions being exactly followed.

Peter Levens, "Master of Arts in Oxford, and student in Physick and Chirurgery," in his "Pathway to Health," which was printed for J. W., and sold by Charles Tym, at the Three Bibles on London Bridge, MDCLXVI, among numerous other prescriptions, gives this one, for "a man or woman that is in consumption. Take a brass pot, and fill it with water, and set on fire, and put a great earthen pot within that pot, and then put in those the parcels following: Take a cock, and pull him alive, then flea off his skin, then beat him in pieces; take dates, a pound, and slit out the stones, and lay a layer of them in the bottom of a pot, and then lay a piece of the cock, and upon that some more of the dates, and take succory, endive, and parsley roots, and so every layer, one upon another, and put in fine pearl, and cover the pot as close as may be with coarse dow, and so let it distill a good while, and so reserve it for your use, till such time as you have need thereof."

It might be supposed that these

charms and incantations are for the "common people" only, and that ladies and gentlemen of "quality" never believe in such trifles; but the following, which is ascribed, for want of better authorship, to Lord Bacon, will prove that the supposition is baseless. As I find this paragraph in print it must be true. The quotation marks and all look like Lord Bacon's.

"The taking away of warts by rubbing them with somewhat that is afterward put to waste and consumed is a common experiment; but I do apprehend it rather because of mine own experience. I had from childhood a wart on one of my fingers; afterward, when I was about sixteen years old, being then at Paris, there grew upon both my hands a number of warts (at least an hundred) in a month's space; the English Ambassador's lady, who was a woman far from superstition, told me one day she would help me away with my warts, whereupon she got a piece of lard with the skin on, and rubbed the warts with the fat side, among the rest the wart which I had from my childhood; then she nailed the piece of lard, with the fat toward the sun, upon a post of her chamber window, which was to the south. The success was that within five weeks' space all the warts went quite away, and that wart which I had endured for company; but at the rest I did little marvel, because they came in so short a time, and might go away in a short time again, but the going of that which had stayed so long doth yet stick with me. They say the like is done by rubbing of warts with a green elder stick, and then burying the stick."

But for "whooping cough" the remedies have a family name of great antiquity—viz: "Legion," every one of which is warranted to make the "whoops" one less. Time would fail me to enumerate all of them, but among the principal remedies for this disease the following can be tried:

"Administering shell-lime; using a drinking cup of ivy; allowing a piebald horse to breathe on the patient; giving

nine fried mice, three each day, for three days in succession; tying around the patient's neck a bag containing a caterpillar; passing the child nine times under the belly and over the back of a donkey; feeding it on currant cake made by a woman who did not change her name on getting married, or on bread and butter made in a house the master of which is named John and the mistress Joan; getting the owner of a piebald horse to say what will effect a cure; holding a toad in the child's mouth, in order that it may catch the disease; giving the patient for drink new milk out of a cup made of variegated holly; all of which are in use to this day as infallible" as Pope Pius IX, and are full as valuable as the advice to parents, on how to train up their children, from a dyspeptic old bachelor. The public is warned not to laugh while using any of these "sovereign remedies," for that is not the "time to laugh." The subject itself presents several serious sides, and unless a person can "laugh out of the other corner of his mouth," the old grandmothers all prohibit laughing. For fear "the folks" might think that this piece was written to make them laugh, I have written these "last lines which look so solemn" just as a warning. In conclusion, the writer would add that if any are concerned in the least upon this grave question, these solemn sentences are "to whom it may concern." — *Christian Monitor.*

EMPLOYMENT OF WOMEN.

THERE are plenty of avocations which men have monopolized which they ought to be willing to exchange for the stolen property they now hold in their hands. For example, there are 14,000 appointments under government, not including post-offices, of which women get 600; there are 250,000 clerkships of all sorts, in shops, telegraph, insurance and other offices, for which women are peculiarly fitted, and yet they get no more than a beggarly 7,000. Now would it be asking too much of some of the lubberly, hulk-

ing fellows, whose sinews and muscles are evidently intended for deeds of prowess and strength, to give up jumping counters, doing up parcels in red tape, directing wrappers, and keeping petty accounts, and to turn their attention to some of the avocations for which women are unfitted and where their strength can have full play? There are many employments to which women are not physically adapted, such as hunting, trapping, mining, manning ships, running heavy machinery, farm labor, engineering, and the out-door exposure of expressmen, conductors, hackmen, drivers, and a long list quite enough to afford men an opportunity to earn the lion's share of wages and keep matters generally under their control. The statistics of New England show that, while men have devised methods for adding to their wealth, the ability of women to earn a livelihood has diminished. In Massachusetts alone there are 50,000 more women than men. The men have rushed to large cities to look after clerkships or to do the counter-jumping, while shipbuilding languishes and the famous New England sailors are fast becoming a myth. In the meantime, the daughters of the land remain at home, and, having been deprived of the industries alluded to above, as their numbers increase and the ways and means of earning a support decreases, it is natural that they should feel some anxiety for the future, and demand a larger share in the distribution of work. There are more than 2,000,000 women in England who are compelled to support themselves, and with them the struggle is one of life or worse than death. Miss Faithfull established the *Victoria Magazine* in order to advocate the cause of women and give employment to her own sex in the composing room. Her example has been followed in this country, and in many printing offices women are now constantly engaged. This is one step gained, but it ought to be followed by many others.

It has been said that females are more conscientious and naturally honest than men. If that be true, in times like the

present, when charges of bribery, defalcation and dishonesty are freely made on all sides, it would be well worth the experiment to see if the gentler sex are better able to resist the temptations that always surround positions of responsibility or trust.

One thing is very certain, the right of woman to her share of honest labor cannot be put down by ridicule or despotism. It must be met fairly and squarely; and now that it has been taken up by our most refined and gifted women, we trust that the question will be soon settled, to the entire satisfaction of all parties.—*Scientific American.*

HUMAN HAIR: DEAD AND ALIVE.

The Sanitarian gives the following interesting information on this subject, under the title of

THE CHIGNON—A NEW FIELD FOR THE STUDY OF NATURAL HISTORY.

Being called recently to see one of his best patients, a matronly lady of about fifty summers, she greeted him—"Doctor, I want you to give me something for my head; it feels so, I could almost tear it to pieces, and it is all breaking out in sores." Examination revealed disease of the hair follicles, and a high degree of irritation by the excessive use of the comb and brush to allay the itching. The nutrition of many of the hairs was evidently destroyed, and these dead hairs added to the mischief. Attention was next directed to the manner of dressing the hair—with what? Was the scalp kept too warm?

"Nothing but soap and water, and occasionally a little bay rum to cool my head, and I wear only these light rats to keep my hair up, for you see it's getting very thin."

Here was a suggestion, for the doctor had not long since read in the *British Medical Journal* of certain investigations by Dr. Lindeman, where he found some false tresses and chignons richly stocked with *gregarinidae*. So, smuggling off portion of a rat (lest he should shock his patient by asking for the loan of it), he prescribed a placebo, and returned home to complete his diagnosis. On submitting his chignon fragment to the light of his microscope, he discovered numerous little nodes—or nests, as they turned out to be—agglutinated to the hairs of the chignon for support and nourishment, each nest filled with eggs. These were in various degrees of maturity, some swollen and just ready to burst, as it were under the genial warmth of the scalp, and each capable

of establishing a colony of not less than fifty *psoroperna*—exceedingly small spherical animals, so light as to be wafted by the air—and adhesive to any congenial substance for nutriment.

The patient was judiciously advised appropriate remedies, not the least of which was the discontinuance of the chignon, and she ere long recovered.

M. Lindeman tells us that when these little creatures mature, they are easily shaken from their resting-places; and, floating in the air, liable to penetrate into the interior of the human organism, reach the circulatory apparatus, and produce various maladies—cardiac affections, especially valvular disease of the heart, Bright's disease, pulmonary affections, etc. He calculates that in a ball-room containing fifty ladies, forty-five millions of *psoroperna* are set free; and he concludes that it is necessary to abolish false hair, which often proceeds from unclean persons.

It is characteristic of *gregarinidae* and other similar organisms to remain dormant for indefinite periods in their early stages of development, awaiting, as it were, congenial circumstances for speedy maturity and multiplication; and they are usually to be found on and among dead animal matter, such as the chignon. Hair and all other animal substances are subject to a process of decay which is usually accelerated by warmth. And it is this condition, too, which promotes the speedy maturity of these always wakeful little scavengers. While the process of decay in the chignon is slow, alike slow their growth, yet fast enough to take up and reorganize the decaying matter. But this, no longer left to the ordinary course of slow, and almost incomprehensible, change, being thrust into a hot-bed, decomposition is hastened, with a corresponding degree of nourishment for the *gregarinidae*, and their rapid growth and multiplication to devour the proceeds of decay, is one of the benign providences of their nature. Under such circumstances they also find refuge and abundant nourishment in the hair follicles, almost *ad infinitum*, and the timely warning of an itching and tender scalp is, after all, only as the watchful sentinel on the threshold of greater dangers.

[Ladies, ladies! Why not be sensible, and leave off these unclean, disease-generating mops, and trust to cleanliness, purity, and sweetness for attractions? We know what a severe mistress foolish Fashion is, and we know how hard it is to break away from the rule of Mrs. Grundy—but are you not human beings? And are you indeed silly slaves? Then hug your clanking chains; pile on the clippings of corpses, and, jackdaw like, try to shine in borrowed plumes! A day of reckoning is near, "God is not mocked."

PHYSIOLOGY IN THE PULPIT.

SCIENCE is the handmaid of religion, especially physiological science. This is reason enough why ministers of religion should understand its resources, and avail themselves of all its services. But, without study, a man cannot expect to talk profitably upon this branch of science, more than upon any other. A case in point occurred a few days ago, not far from one of our great centres, and in presence of a large and intelligent audience. The sermon was to the children. The subject of the discourse was "Samuel," in which occurred the following episode: "The reason why God gave beards to men and not to women, is that men have to use their voices in public speaking, and the beard is a defense to the throat to keep it from becoming sore. For a similar reason men have moustaches, which keep the eyes from becoming sore; and men have to use their eyes a great deal in reading and study." He then dilated somewhat on these points, giving only a single sentence to the real physiological fact that the beard is a defence against the weather, and men are out of doors more than women.

The children formed only a small part of the audience; and it is hardly possible but that many people were present of sufficient intelligence to compare this theory with facts, and to ask how it happens that Anna Dickinson, and Mrs. Livermore, and Lucy Stone, and Mrs. Van Cott, and Mrs. Diehl, and many others, who have been before the public for years, can still speak to large audiences night after night, for months together without intermission, and not break down with throat disease. For none of the women have beards! Perhaps, if they had, and had sinned against their nature by cutting them off, they might have had throat disease or sore eyes, or both. But, that not being the case, they have fairly proved that they could use their voices to good purpose with less percentage of sufferers from throat disease (so far as our observation goes) than among clergymen. And would

not even the children themselves sooner or later begin to look about among the girls who are their school-mates and college-mates, and think it time for their eyes to be growing sore, if they were going to do so?

So great, however, is the popular ignorance of physiological science, that very few would probably reason much about it. They might lay it up, as on a shelf, with other physiological curiosities of equal value, to be brought out and aired when they wished to show their learning, or more likely when they wished to overrule any of their feminine relatives, who might endeavor to devote themselves to literature or public speaking.

Such a confusion of physiological facts and theories, does not help much to a better popular understanding of the science, while it is all too evident that it does not add to the dignity of the sacred desk. This is only an additional proof of the necessity of having this branch of science thoroughly taught in our schools, so that ministers, as well as other people, shall be "thoroughly furnished unto every good work." BEREAL

TAKING MEDICINE.—Napoleon, who was a man of grand intuitions, once said to the Italian physician, Antonomarchi: "Believe me, we had better leave off all these remedies. Life is a fortress which neither you nor I know anything about. Why throw obstacles in the way of its defence? Its own means are superior to all the apparatus of your laboratories. Monsieur Covisart candidly agreed with me that all your filthy mixtures are good for nothing. Medicine is a collection of uncertain prescriptions, the results of which, taken collectively, are more fatal than useful to mankind. Water, air, and cleanliness are the chief articles in my pharmacopœia."

A VERMONT landlord has offered to abandon the sale of liquor if his townsmen will pay him \$400 a year. The towns-people refuse, and threaten him with prosecution if he continues the traffic.

If the secret history of many houses were told, the gentle and soft-sounding words "providence" and "bereavement" would be stricken out, and the sterner ones, "child-murder" and "suicide" would be put in their places.

PERAMBULATING COT FOR INVALIDS.

THE accompanying illustration shows a device for an automatic or perambulating cot, which is the invention of one of our agent-friends, Mr. A. W. Richards, of Indianola, Iowa, who is himself an invalid, having a spinal disease caused by an injury received while in the United States military service. Mr. Richards, who has thus made his own necessities "the mother of his valuable invention," was born in Ohio, but has lived with a large family for several years in his present place of residence. With this cot and the help of one of his sons, less than twelve years old, he is enabled to go about the city, attend to business, visit

the hips, and is arranged with ratchets, enabling the occupant to sit at any desired angle. From the knee forward there is a light tapering board and a half-circle foot board. These are upholstered, and covered back to the hips with neat Brussels carpet and the back with damask, trimmed on the edge with scalloped patent leather. The apparatus is so provided with handles and lever that persons who have the use of their hands can propel the cot themselves, and raise and lower the foot-board. Mr. Richards, who has not been able to sit up for nearly three years, weighs nearly two hundred pounds, can move himself from



friends, and even to attend church. This vehicle-bed is made with a pair of twenty-inch wheels on an axle twenty-six inches long; upon which rests a light curved iron frame, supported in the rear by a pair of nine-inch castor wheels arranged on pivots. These wheels follow the main wheels, and turn in any desired direction. On the frame named are four curved springs extending up to the mid-section of a light wooden cot frame; the two sections from the knee joint back are covered with heavy cotton cloth in one piece. The joint is just back of

room to room. The wheels are covered with rubber to prevent noise and concussion. What a blessing it would be if every invalid in this country could be supplied with one of these cots! Simply thinking of this will show the urgent need there is for this invention. It would enable many a poor suffering person to change his position and location without depending upon the assistance of others. An independent condition in itself is conducive to buoyancy of spirits. Buy no more drugs, but save your money and buy a perambulating cot.

LEAVE THE BABIES ALONE.

OUR grandmothers were possessed by the absurd idea, that children ought to be taught to walk, and suspended them at the tender age of six to twelve months, by straps, usually held by hand, in such a way that the baby's feet could just touch the ground. As at an early age their little legs are too weak to support the body, nothing but injury can result from the choice between hanging and standing on such weak legs. Walking chairs were also made, and are still in use, here and there, in which the child is confined, by being set in a central hole of a machine on rollers; but of all this and similar contrivances, there is but one which a child will really enjoy, and which is not injurious, but useful; it is that kind of baby-jumper in which the child sits on a support, suspended by elastic straps, so that his feet can reach the floor, and his legs may be exercised by kicking himself upward.

We have successfully raised several babies (not in an editorial capacity, but in a personal one), and we have also advised about the treatment of many more (this formerly in our medical capacity, which we now attempt to do editorially, also). Our advice was, never to teach them walking, but to leave them severely alone; to let them creep round on the carpet, in which they soon attained such proficiency as easily to move about to every spot accessible to them. They raised themselves, soon enough, by help of chairs or table legs, becoming tired of creeping, and showed the character of their genus as a two-legged animal, Jean Jaques Rousseau's opinion notwithstanding, who asserted that man was naturally a quadruped, and when not taught otherwise, would walk on his hands and feet.

Another injury done to babies, by means of the modern perambulators, is severely commented on by a contemporary, *The Lancet*, who says: "We have often seen a nursemaid, while wheeling a perambulator containing a limp baby, of a very tender age, proceed to cross the

road in the most injudicious manner. Of course, the front wheel ought first to be lowered carefully off the curbstone on to the roadway, which is often a full foot beneath it, and then, the front wheel being lowered, the hind wheels ought to be carefully lifted after it, and the transference of the baby thus effected entirely without any jerk, and without any concussion of the spinal column. The nursemaid performs this operation in a manner totally at variance with this. The front wheel is lifted off the ground, and the perambulator being tilted backward is deliberately shoved over the little precipice before it, and alights below with a tremendous concussion, not only trying the springs of the little carriage, but giving the baby a jerk which keeps its head bobbing up and down, for some seconds. We have frequently seen babies burst out crying after the concussion, which must be most injurious to them, and must be frequently the cause, repeated as it is many times daily, of inducing disease of the spine."

In regard to the nursing of babies, there is a great deal of nonsense dispensed, especially among the lower, ignorant classes. When we were practising medicine in New York, several years ago (having long since withdrawn from this severe vocation), we found the prejudice prevalent, that the first mother's milk was injurious for babies; but that the first thing a newly-born child should have was some alcoholic liquor. Among the English gin was preferred, among the Irish whiskey, and among the Germans lager-bier; all, of course, given by the spoon. Even more educated people supposed that sugar-water was better than the milk, but we always succeeded in convincing them fully, by asking why they did not treat a newly-born calf or colt in this way, and then pointing out that human children were more subject to diseases and mortality than the young of animals, and that this was chiefly due to the fact, that there was too much intermeddling with children, and that they

were not left alone with their mothers, as was the custom to do with young animals.

Another fatal prejudice is, that the mother is sick and must have medicine. Our experience had proved that such course gave no end of trouble, both for mother and child, and the prejudice was met in the same way as above, by the question, why they did not give medicine to the cow or mare, when a calf or colt was born? We are satisfied that the exemplary success we experienced in this line of business was solely due to our efforts to enforce the rule, to leave the mother, as well as the baby, alone.—*Manufacturer and Builder*.

HOW ABOUT DOCTORS?

[*The Builder*, an excellent monthly, discusses the subject in this frank and friendly manner.]

"No doubt the medical profession is possessed of a vast amount of learning, and physic has its uses, but an age that thinks for itself is fast losing confidence in doctors and drugs. And physic itself, too, is less confident of its power to cure than it was in former times. The sons of Esculapius are somewhat oracular in their answers now-a-days, rather 'Bunsbys' we would say.

"Now, if a man has a question to ask about his soul, he gets a positive answer. If he expresses a desire to be saved, he is told to repent, pray, believe, join the church, and conduct himself decently, and future happiness is certain. Or, applying to another teacher, he is told that heaven may be reached by learning certain rudimentary truths, confession, the sacrament, the payment of tithes, and the saying of prayers; in short, by being in the church. Different teachers make different prescriptions, but every prescription is a specific. Obey the rules laid down and the leprosy of sin departs, and sainthood and heaven follow.

"But suppose one is dyspeptic, and applies to his physician for a cure. Why, he is asked a great many questions, remedies are hinted at, certain drugs are perhaps prescribed, but no positive results are predicted. If doctor and patient are both men of intelligence, the probabilities are that drugs will not be hinted at, but an allusion will be made to cracked wheat, and cream, and exercise. But suppose the patient is afflicted simply with biliousness, an ailment that is quite common everywhere? Well, the country doctor may, perhaps, prescribe

a blue pill, to be followed by a seidlitz powder, and if the patient is credulous a cure is promised; for, will not calomel stimulate the liver, the torpid condition of which is the cause of the difficulty? Yes, and the patient gets better, but in a few days his trouble returns, and he loses confidence in his medical adviser, so the promise would better have been omitted. The more intelligent physician, however, will not promise to cure biliousness; quite likely he will prescribe no drug, but recommend exercise and diet.

"But go a little further on, and how helpless is the medical profession to combat disease. We met the other day a man who had been a sufferer from fever and ague for years, and no medical skill could relieve him. If one finds himself the victim of kidney disease, he may knock at the doctor's door in vain; certainly he gets no relief from drugs. Did ever a doctor do anything for rheumatism or neuralgia? Do people die under the eye of the doctor from consumption, fever, cholera, hydrophobia, and a thousand other ills? Yea, verily. And intelligent people are fast coming to the conclusion that disease cannot be successfully combated by the way of the stomach, that the best mode of cure is prevention, that if we would not suffer and die by an attack of sickness, we must avoid the attack.

"And better than all drugs and doctors are fresh air, exercise, and a good diet. The kitchen has more to do with health than we have been willing to give it credit for. Bad bread, over-cooked meat, and rich pastries have slain their tens of thousands. We shall have made a mighty move forward towards getting on without doctors when we learn to cook; when good cooks are as common as are ignorant ones now. We shall be drawing near to the millennium of good health—a period in which doctors will be dispensed with—when every woman who cooks shall learn the art of making a pure and wholesome soup."

[*The Builder*, with many other first-class journals, is in perfect accord with the teachings of our SCIENCE OF HEALTH, and will assist in making medical quackery better understood. Then, we may look for the adoption of sensible measures for preserving health, and escaping the difficulties which wrong living and medical experimenting bring on the race. We thank *The Builder* and other journals for the assistance they render in this good work.]

BUSINESS AND HEALTH.

BY R. T. TRALL, M. D.

THE pursuit of wealth for its uses is praiseworthy and ennobling; but when riches are sought as the end of life, or as treasures to be laid up on earth and transmitted to others, nothing can be more despicable and degrading. The wealthiest merchant in the world is reputed to be worth one hundred millions of dollars. This may be an exaggeration, but if we call it one million the sum will answer all purposes so far as the moral of our story is concerned. He has an immense wholesale warehouse, a palatial retail store, a princely mansion, and many blocks of buildings in New York. He is seventy years of age. He has recently been sick of a disease which is generally fatal. But, having partially recovered, he has just left on a European steamer to spend a few months abroad for the double purpose, as the papers say, "of benefiting his health and extending his business."

Herein is a conundrum which is respectfully submitted to the consideration of rich men who are still in pursuit of riches. Why should Mr. Stewart connect an enlargement of his already immense business with the pursuit of health under difficulties? Has he not wealth enough? Has he not all he can use or enjoy? Who or what does he expect or desire to benefit by the accumulation of a few more millions? He has but a little longer lease of life. Possibly he may live five or ten years. Probably not half so long. This he is well aware of. Then why this mad pursuit, this insatiable greed of gold, with its attendant wear and tear of mind and soul? Why is he not rather reviewing his record, arranging and disposing of his earthly possessions, and preparing for the everlasting hereafter?

Alas! he cannot help doing business. His whole life has been given to business. His whole nature is set, bounded, cabined, cribbed, confined to the ruts and channels of business. He is a business

monomaniac. Put him in any position where he could not do business, and he would die of ennui. What a pity that there will be no little opportunity in the "mansions in the skies" for the display of his magnificent business abilities!

Very few heirs are ever benefited by the large fortunes which are left for them. Nine-tenths of them, because of such fortunes, become idlers and consumers, and many of them debauchees and paupers. Children should have health, education, and be taught self-reliance and useful occupation. Idleness invariably leads to dissipation, and the hard earnings of those who drudge their lives away in traffic are, in most cases, the curses that degrade and ruin offspring. How much better the examples of Cooper, Peabody, Smith, Rush, and others who, while living, endowed institutions of learning and beneficence.

But my business is with the rationale of the subject so far as it can be made to point a wholesome moral. It is a law of organic life that exercise and education develop power (within certain limits). The more one set of muscles or one group of mental organs are exercised comparatively, the more will the character or person be developed in relation to the subjects or objects to which those muscles and organs relate. If acquisitiveness in the method of traffic or hoarding has been disproportionately exercised through active life, the disposition to accumulate will be the ruling passion till death, unless insanity intervenes.

It is a mistaken opinion that a person can, in the decline of life, change his own character, disposition and vocation at will. Unless he studies something besides money-getting during early and mature life, he will have neither inclination nor capacity to do it afterwards. And whether he has accumulated much or little, he will necessarily be a miser. Will he not find himself "poor indeed" at the "celestial gate" when asked for

his credentials? The only safety for those who are so fortunate or unfortunate as to "lay up treasures on earth" is to devote some portion of their attention and property to schemes of philanthropy, wherein getting and giving will be measurably balanced, and the character harmoniously developed. Such a life would be in accordance with the laws of the higher life, and eminently conducive to the health of the body as well as salutary for the soul.—*Philadelphia Star.*

IMAGINATION.—ITS EFFECTS ON HEALTH.

THE importance of presence of mind in the sick room, is illustrated in the following:—

Dr. Cabarus, who died at Paris last year, was one of those jovial physicians whose presence is equally sought in the sick room as in society, and who effect more with humor and pleasantry than by medicine. Being a brother-in-law of Lesseps, the celebrated engineer, who built the Suez Canal, and nearly related to a principal family of his native land, he moved in aristocratic circles. The Duchess of D., one of the most aristocratic ladies of the Faubourg St. Germain, had got possessed of the idea that she had swallowed a frog. She felt this said frog, she declared she did, and its presence robbed her of peace of mind, sleep, and even health. The Parisian physicians had the rudeness to deny the existence of this animal, ignorant as they were that the poor lady suffered martyrdom. A fortunate circumstance made her acquainted with Dr. Cabarus, and to him she told her tale of woe. He felt with a seriousness worthy of Hippocrates himself the pulse of the fair patient, inquired after the various symptoms, and when the charming aristocrat had exhausted all her store of arguments to prove her pet allusion, the sagacious doctor said, after a well-feigned pause, "Madame, the frog is there, but I will remove it." He then prescribed an innocent emetic, and went to the nearest flower shop, where he bought a small green frog.

Armed with this confederate he presented himself once more before the duchess, and placed a large basin of water in readiness. The emetic began to take effect, the duchess' eyes filled with tears, and our doctor took advantage to slip the green frog into the basin. On seeing the frog a load was removed from the duchess' heart, and for an instant all seemed well. The next moment she turned pale, and as Dr. Cabarus supported her tottering frame, she cried in a despairing tone, "Oh, doctor, I am not cured, for the frog has left little ones behind her." "Stop," cried Cabarus, without allowing a trace of embarrassment to be seen in his manner, "that we shall soon see." He then threw a searching glance upon the frog, which he had by this time taken in his hand, and uttered with a certaintly that settled the whole question these words, "Madame, that is an impossibility, for the frog is a male!"

Whether this be fact, or only fiction, it shows the necessity of presence of mind, and of assurance in dealing with warped minds or diseased imaginations. A thoroughly competent physician may perform wonders in a sick room without drugs, by knowing how.

SLEEP AS A MEDICINE.—The cry for rest has always been louder than the cry for food. Not that it is more important, but it is often harder to obtain. The best rest comes from sound sleep. Of two men or two women, otherwise equal, the one who sleeps the best will be the most moral, healthy and efficient. Sleep will do much to cure irritability of temper, peevishness, uneasiness. It will restore to vigor an overworked brain. It will build up and make strong a weary body. It will cure a headache. It will cure the heart-ache. It will cure a broken spirit. It will cure sorrow. Indeed we might make a long list of nervous and other maladies that sleep will cure. The cure of sleeplessness requires a clean, good bed, sufficient exercise to produce weariness, pleasant occupation, good air, and not too warm a room, a clear stomach, a clear conscience, and avoidance of stimulants and narcotics. For those who are overworked, haggard, nervous, who pass sleepless nights, we commend the adoption of such habits as shall secure sleep; otherwise, life will be short, and what there is of it sadly imperfect.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

SEASONABLE DISHES.

BY JULIA COLMAN.

Sweet Potatoes; how to Select, Cook, and Store them.—Dried Sweet Potatoes.—White Turnips.—Grapes.—Grape Jelly Pudding.—Jellied Grapes.—Baked Grape Pudding.—Boiled Grape Pudding.—Grape and Peach Pudding-Sauces.—Scalloped Peaches.—Tarts.—Sweet Grapes.—Canning and Keeping Grapes.

I SHOULD hardly be willing to be called a politician, but I have a decided leaning toward President Grant's policy of the acquisition of territory. It may not be easy to unify the different races which grow up in widely separated localities, but it seems we are bound to have these in any case by immigration, so long as "Uncle Sam has land enough to give them all a farm!" and our own experiments already show that the Yankee element is strong enough to color, and mould, and probably eventually to harmonize the mixture. If so, we are safe in favoring the policy of acquisition; and the Yankee is worthy to enjoy the advantages of his cosmopolitan character. One of the first of these is to have the productions of various climes freely upon his tables. This seems tame enough in the utterance, especially to those who consider that there are many higher pursuits than those of eating and drinking, as well as to those who think that each clime produces enough to supply the real wants of those who live therein. But the part played in the commerce of the world, and consequently in its civilization, by the interchange of eatables is sufficient to show that the appetites have had no small share in the advancement of the race. To make them conducive of good only is a condition to which we have not yet attained with regard to them, more than to many other things.

The next step after this introduction by commerce, is to have as many as possible of these desirable commodities pro-

duced within our own borders, so that they can be had by interchange without tariff or treaty, very much as if they had only come from some other part of our own private farm. In this way we here in New York can have with equal facility—barring the mere fact of distance—green peas from Virginia or from Jersey, oranges from Florida, peaches from Delaware, or pears from California. Just at the moment when their superior quality and the facility with which they can be raised overbalances their increased expense of freight, they are thrown on the market, and we have the better article at the less price. Hence the advantages of a great national farm with its variety of soil, climate, and productions. I suspect by this time some of my readers may prefer the commodities to the politics, so I shall hasten to meet the demand, and by way of illustration introduce—

Sweet Potatoes. I like sweet potatoes;



and, thanks to the big farm, we can get good ones if we cannot raise them. They are wholesome as well as palatable, and they contain more nutrition than Irish potatoes. The varieties are not so distinct as those of the latter, and it is more difficult—at least to our less accustomed eyes—to make good selections in marketing, but generally the plump, short shapes with pointed ends, and a clear, bright yellow color, are better than the longer or the duller-looking varieties. Whatever their shape, it is quite important that they should be ripe. A green sweet potato is as waxy, and to my no-

tion more unpalatable, than a green Irish potato.

When properly cooked, a good sweet potato is mealy and bright throughout, though it does not in any case crumble and cook to pieces through mealiness. If mealy in spots it may pass muster, but if waxy throughout it is not presentable. It will, however, be more likely to cook mealy by baking than by boiling.

Roasting is better still. Those who are blessed with wood-fires in a fire-place, may try the latter method, covering up the potatoes well in hot ashes, and leaving them until they are tender. If they manage it neatly, they will probably be repaid for their trouble. But for us who use stoves and coal-fires, we cannot do better than to bake them.

Baked Sweet Potatoes. Put the larger potatoes on the hotter side, though even then the smaller ones will be likely to cook much sooner than the larger. Sweet potatoes differ curiously from Irish potatoes in that respect. Small ones will cook in fifteen minutes, while very large ones may require an hour. Try the potatoes to find if they are done with the fingers—through a towel, if necessary—but do not probe them with a fork nor break them open. Serve as soon as they are done, in a covered dish. If they must wait sometime before serving, let them remain in the oven with the door open. When cold, if not overdone, they can be made quite palatable by warming again in the oven.

Boiled Sweet Potatoes. Sweet potatoes are not pared before boiling; partly because it is far easier to peel them afterward, and partly because if boiled in iron they turn black. For the same reason they should be cut as little as possible before cooking, and they should be neither probed nor lifted with a steel fork. Have them nearly of a size, and stop their cooking as soon as they are done. This is the great secret in cooking any kind of potatoes well. Drain off the water, and let them stand and dry until wanted. If any are left to cool, they can be made presentable by steaming. Another good way to warm them

is to slice and brown them on a griddle. Frying them in butter or in fat may suit some perverted tastes, but it injures their digestibility. A better way is to slice them into warm milk, cover close, and cook till they begin to break; salt slightly, and mix them until but little milk is visible. This dish is also very good made with Irish and sweet potatoes mixed.

Another way is to make a white sauce with milk or with green corn milk, add to it cut sweet potatoes (cold or hot), and pieces of batter-biscuit in equal quantities, heat gently but thoroughly, and serve warm. Stir it very little or it will be messy. There are so many methods of serving cold sweet potatoes, that they need never be thrown away; and if they are not wanted for immediate use, they can be sliced and dried.

To Keep Sweet Potatoes. They cannot be carelessly thrown in the bin in the cellar and left like Irish potatoes with any certainty of finding them when wanted. They must be gathered with great care, and kept dry and warm. Some pack them in barrels of dry sand or dry leaves, and keep them in the warm kitchen chamber. Others just put them into barrels or bins in the kitchen. Many of the kitchens of New Jersey are furnished with long, low boxes on one or more sides of the room, which serve as seats, and in which the supply of sweet potatoes keep safely until midwinter. But they are dug on a dry day and put away dry and sound; for if they are cut or bruised they are almost sure to decay and injure their neighbors. The methods of keeping them are now so well understood, that the New York market is abundantly supplied with them until the following May or June. But the market-men are not careful in handling them, and they decay very soon after purchase; so that many families purchase what they want for one meal only. If a bushel or more is brought home from market at any season, spread them on the floor of a dry, open attic, and watch them carefully from day to day. If they decay faster than they can be used, cook and dry them.

Dried Sweet Potatoes. I have been told that in the Southern States they pare sweet potatoes and kiln-dry them raw. I have never seen that article, but from the results of my own experiments, I prefer to boil them first. They can then be sliced and dried according to the directions already given for drying and keeping fruit. If preserved from insects they will keep for years.

When wanted for use, cover with warm water, and simmer in a close vessel for two-and-one-half hours, or until quite tender. The water should be done down to a syrup and retained; then mash with a pestle and salt slightly. When properly done, it is about the consistency of common mashed potatoes, and serves nicely with meats, beans, succotash and many other dishes. They make a very convenient addition to the table variety of late Winter, Spring and early Summer. If their value in this shape were appreciated, they would become a market commodity.

White Turnips have little to recommend them save their lack of nutrition; and for this reason they may be valuable to those who eat much concentrated and constipating food. To those who eat correctly of fruits and grains they are of very little value. They have, however, a pleasant taste; especially when raised on rich, mellow soil, and after the summer heats have passed away. We have seen them sown between the rows of corn on western soils, and on woodland just cleared and without tillage, which eaten raw made no mean substitute for apples. There was not, excepting in the skin, a trace of the "strong," bitter taste which is found in nearly all the turnips in Eastern markets, especially in dry seasons. This strong taste is only partially removed by cooking. Pare off all the skin, and if they are small and young cook whole. If not, cut them in slices half-an-inch thick, and then boil or steam until quite tender, requiring from thirty to forty-five minutes. Dish in shape as cooked, for if you mash them, salt and butter, if not pepper, seem absolutely necessary to make them palatable.

Cream, however, can be substituted for the butter.

A better way still is to cut in smaller pieces, slice them on pieces of batter-biscuit, and pour over them an abundant white sauce made with milk or corn-milk thickened with wheat-meal, as already recommended for sweet potatoes. Indeed, for a homely dish, bits of cold sweet potato, steamed, may be added with advantage. This style of dressing is also good for onions, premising that they be cooked very thoroughly.

Grapes. This excellent fruit has been waiting quite too long considering its value and its availability in cooking. Some excellent authorities say that grapes are good enough without cooking. Perhaps they are, but we must plead that our cooking is not good enough without grapes, so long as the latter gives us many excellent dishes. And some of the grapes like the Isabella, unripe, as commonly found in the market, and the coarse grapes found in the fields, can be greatly improved by cooking. Ripe Catawbas and Delawares lose the delicacy of their flavor by exposure to heat while ripe. Isbellas and Concords may be cooked with much better results. We find it necessary to send many of the unripe market grapes to the kitchen, while we serve the fruit-dish from those which are ripe. Trim out from the clusters any that are imperfect, handling them always by the stems. If they need washing lay them on a sieve or colander, turn the hydrant on them, or pour on water from some height.

The skins of many of our grapes are too tough and too acid to be eaten comfortably, while the pulp is more agreeable swallowed whole. This gives us the seeds to aid digestion; and we believe most hygienists approve of their use. When cooked, we eat the skins, and to some extent reject the seeds. We suspect, however, that in the latter case it is often done because they interfere with the rapidity of eating. So we take very little pains to remove them. However, in stewing grapes where they settle to the bottom of the kettle, many of them

can readily be removed. These stewed grapes make a most delicious dish deserving of more common use.

Ambrosia. Grapes make a charming ambrosia, which is much liked in spite of the seeds. These it is useless to try to remove, for the grapes must be put in whole or the free juice will spoil the dish. It is almost equally necessary in the

Grape Jelly Pudding. This should be made in a pipkin or other closely covered dish. To three gills of rice take one quart of grapes stemmed and washed, place a layer of the latter on the bottom of the pipkin, sprinkling upon them sugar enough to sweeten them, then a thin layer of rice, making them spend alike, and finishing off with the rice. Handle carefully, so that the rice shall not mostly settle to the bottom. After it is set into the oven, put in water enough to cover it, and cook slowly two or three hours or until the rice is very tender. Serve cold, with a dressing of sweetened milk or cream, or grape-juice if wanted.

Jellied Grapes. A more delicate dish which may be used either as dessert or in place of stewed fruit, can be made with one part rice, and six parts grapes prepared and cooked in the same manner as for jelly pudding. If properly managed the rice kernels entirely disappear, the juice being thickened with their starch. It may be made either with little water or none at all, according to the consistency desired.

A very simple and yet a very delicious breakfast-dish, may be made by stewing rich grapes until quite tender in an equal quantity of water, sweetening to the taste, and then dipping halves of batter-biscuit into the hot fruit. Arrange these in a deep dish, pour the remainder of the stewed fruit over it, and let it stand until the biscuit is perfectly tender. If you wish to avoid the seeds, run the stewed fruit through a colander before dipping in the biscuit. Serve warm or cold.

Grape Marmalade. Stew the grapes with an equal quantity of cut tart apples, press all through a colander, and sweeten to the taste. This may be served as

stewed fruit, or it may be used to treat batter-biscuit as in the above recipe, or for puddings.

Baked Grape Pudding. Cut cold batter-biscuit into thin slices, and place it in a nappy in alternate layers with the grape marmalade, beginning and finishing with the latter. Have much or little moisture, according as you prefer puddings hard or soft. Bake thirty or forty minutes according to the heat of the oven. Like most other fruit puddings it is best served cold.

Boiled Grape Pudding. Pare rich tart apples, and cut to the size of a chestnut (or by cutting each quarter in four pieces), and add an equal measure of grapes, say one pint of each, and stir into it two spoonfulls of wheat-meal. Then make a scalded wheat-meal crust, roll to one-third of an inch thick, place in it the prepared fruit, close it over the fruit, sew up in a napkin, put into boiling water and boil an hour. Grape dumplings may be made with the same materials; wrapping up half-a-teacupful of the fruit in a crust, and, for convenience, placing it in a patty-pan, and setting in the steamer. Cook until the apples feel soft. Serve warm, with

Grape and Peach Pudding Sauce. Strain off the juice from stewed grapes, sweeten to the taste, and thicken with sifted wheat-meal, not more than one spoonful to one pint of juice. Another good sauce can be made by stewing tart apple-skins in barely water enough to cover them, draining that off, adding an equal quantity of grape juice, seasoning and thickening slightly as before. The thick, sweetened juice of stewed or canned peaches also harmonize finely with grape dishes. A delicious peach sauce can be made by stewing peach parings instead of apple, adding to the strained liquid an equal quantity of the juice from stewed peaches, and thickening and sweetening in the same manner.

Scalloped Peaches. In stewed and strained grapes soak an equal quantity of bread crumbs, and sweeten to the taste. Spread this an inch deep in a nappy, and then pass into it the halves of large, peel-

ed peaches, stoned side up, filling their cavities with a teaspoonful of the graped bread crumbs. Strew a few fine bread crumbs or a little rusk over the whole, and bake until the peaches are tender. Serve cold, and sauce with peach syrup.

Tarts. Line some patty-pans with oatmeal crust, put in a spoonful of the graped bread crumbs, set in each half-a-peach also filled with the prepared bread crumbs, and bake until the peaches are tender. Tarts made with the same crust can be filled with grape marmalade, apples, damsons and apples, or with any other desirable simple or mixed tart fruits, stewed and strained. They are also nice with jellied grapes strained while hot into crusts already baked.

The white, sweet grapes from the hothouse, or from California, are not so well adapted for all these dishes; but they are very good stewed, and they make nicely into the American Plum Pudding mentioned last January.

Some of these dishes can be just as well made with canned peaches and grapes, so do not forget to can grapes, either cooking them before or after putting them into the jars.

Preserving Grapes. Of course, however, for nearly all purposes, grapes are best preserved as long as possible without cooking. The practical perfection to which this is carried is so great, that grapes packed in common three and five pound boxes can be had in the New York markets until quite late the following Spring. But this requires an arrangement of rooms and a care of temperatures quite too troublesome for merely family use. In fact, most of the arrangements for keeping grapes in drawers and closets as frequently directed is open to the same objection. However, the time to which they can be kept—even in small quantities—may be extended by observing the following directions:—choose late grapes, letting them remain upon the vines as late as possible without danger from frost. Handle as carefully as possible. Pick out with the scissors all imperfect or decaying grapes. If a piece of the vine may be saved with

each bunch, cut the ends smooth and wax them. In putting them away if a piece of soft, white paper is wrapped around each they will keep better. A dry, cool room is the best place to keep them. They may be packed in quantities of from five to ten pounds in paper or light wooden boxes, or laid away in drawers one layer in each, the drawer being left slightly open.

We find a pretty little cut in the *Scientific American*, illustrating another method of keeping them. The cluster is to be cut late but in good condition, and on a piece of the vine. One end of this is to be waxed, and the other is to be



put through a cork into a vial of water containing a layer of charcoal, making the cork around the vine tight with beeswax. Then place the whole in a cool room with an even temperature. Of course, this is too much trouble for extensive or economical use; but for a few clusters for the Winter table, it is worth trying. The whole subject of raising, keeping, and using grapes is one of great importance, and we shall find occasion to recur to it frequently.

INVEST IN HEALTH!

THE best paying stock is health. As we subsist largely upon air, it should always be pure. Our artificial living, should attain as near the natural, as possible. Heating close rooms by stoves is unphilosophical, unnatural, hence unhealthy.

Ventilation at the top of the room ex-

hausts, unless supplied at the bottom; and the consequence is, that cold air will find every available place of egress at the bottom, and should it come in at the window, it will drop to the floor as quick as so much water, and travel directly to the stove, to supply the place of the ascending rarified air. The effect is cold feet, and from ten to fifteen degrees difference between the feet and the head of the person sitting.

We cannot hope to suspend the law of heat ascending, though we may greatly modify its operation. The true principle is to supply pure, cold air, by means of a pipe directly on to the stove, or heater, and at once rarified before traversing the room.

I have a stove in which is a heating cylinder open at the top, which is supplied with fresh, pure air through a three-inch pipe, a section of which is glass, in which is placed a small red ribbon, to indicate the volume of air entering the stove. The air in the room is increased in density and volume, freighted with oxygen.

The top of the stove is a perforated soap-stone, hinged, so as to open; and the heating cylinder is a *very good* substitute for an oven. If a supply of pure air is thus obtained, ventilation is seldom needed, as the pressure will cause an exhaust. A register under a common stove, communicating directly with fresh air, will approximate to the desired result;

E. MYRICK.

HOW LATE CAN PEARS BE KEPT WITH PROFIT.—Each kind of pear has its season, and in case it is a popular market one, it will, during this time, meet with a ready sale, and usually at paying rates. When the height of the season is over, and such kinds as the Bartlett, Seckel, and Duchesse, are growing scarce, they are certain to advance rapidly in price, often bringing three or four times as much as they commanded two or three weeks earlier, when the market was abundantly stocked. This was strikingly illustrated the past Fall, with the Bartlett and Seckel. At the beginning of September these were sold at from \$6 to \$8 a barrel. In less than four weeks they had advanced to twice these figures, and a week later still there was a brisk demand for them at \$20 to \$30 a barrel of only two and a half bushels. These

rapid advances have caused fruit-growers to expend large sums in constructing retention-houses for keeping fruit back, but very few have found any profit in the process. They have generally held on too long, and lost all or the better part of the expected returns. A number of instances have come to our notice where large lots of Duchesse, kept until after the holidays, have then been disposed of for less than the price paid for them in October. When Bartlett's are getting out of their season, they are in good demand at from \$16 to \$24 a barrel, according to quality, and yet a month later fine Bartlett's, carefully packed, will be sold in the same market for \$10 and \$12 a barrel, with little or no demand. Well-informed fruit-dealers are almost unanimous on this point, that it seldom pays to keep pears back longer than a few weeks at furthest, and that growers should sell before the demand falls off. These facts are given for the consideration of those who contemplate the erection of fruit-retention houses. Whatever profit may be found in keeping other fruits back a couple of months later than their time of ripening, experience has shown that pears should not be held longer than two or three weeks.

FALL CARE OF ASPARAGUS.—Much of the value of asparagus beds depends upon the care they receive in the fall as a preparation for wintering. As early as the stalks begin to turn yellow, they should be cut, dried, and placed in a pile and burned. Too much care cannot be taken to prevent the seed from falling upon the bed, becoming covered with soil, and germinating in spring, as these young plants render the roots too thick in the bed, and being near the surface will make but feeble growth, and be of little if any value, but rather a detriment to the rest of the bed.

After the removal of the stalks, cover the bed with a coat of good fine manure, and fork it into the soil down to the crown of the plants. This manure, acted upon by the fall rains, will wash down among the roots, giving them the food necessary for spring growth, increasing the size and earliness of the stalks.

Just before the setting in of winter, cover the bed several inches thick with coarse stable litter, to remain as a protection from frost, and by its decomposition and washing down, add to the fertility of the soil. Plants that have been set but one or two years, and before they come to cutting regularly, may be covered with a few inches of good soil taken from the sides of the bed. After they have attained a good size and the roots have spread, this may be omitted, as digging at the side of the bed would injure the spreading roots. The winter covering may be stirred early in spring, the coarser straw raked off and the fine manure forked into the bed. This treatment annually will ensure a good supply of early, succulent and large asparagus.

FRUITS, JELLIES, SYRUPS.—Housekeepers are busy putting up apples, pears, peaches, quinces, and other fruits, for winters use. Besides drying enough for family use, enterprising growers will dry to sell and ship to other countries. Here is a field for the most profitable trade. Let a few cargoes of nicely dried and well-packed fruit be shipped to any European port, and a market would thenceforth be open for tons of the same healthful commodity. Newtown pippins command a high price in England, and those houses who first introduced them have controlled a most profitable trade for years. It would be the same, only much more extensive, because dried fruit is not so perishable. Kansas might strike for this, and defy the world. Has she not competed with all the States, and won the prize for the best fruits? As with butter, cheese, honey, etc., so with fruits, every farmer can grow, dry, can, and preserve for sale, and transatlantic cities and European countries. **THE SCIENCE OF HEALTH** will rejoice when we export more fruit than pork. The improved steam dryers, with the porous covers, stowars, etc., makes the thing at once practicable, and prospectively, immensely profitable. Nurserymen, be wide-awake with your best varieties of trees and vines!

A FRUIT LADDER.—In a number of the *Maine Farmer*, we find the following suggestion as to the making of a fruit ladder: "Split an ash or spruce pole to within a few feet of the end; then put on a ring or wrought nail and clinch it, so as to prevent the pole from splitting; spread it the right width for a ladder, until near the crotch, where it must gradually curve: confine it in this shape; bore and insert rounds the proper distance, and it is ready to poke up through any little opening, and will rest firmly against a small branch where a common ladder would often cant or twist about. We have a fruit ladder different from the above, and more complicated and unwieldy, but much better adapted to trees that bear the weight of a ladder and a man. We took a common ladder some twelve feet in length, bored a five-eighths hole between the first and second rounds at the top; a pair of legs on supports, fitting to the outside of the ladder, and spreading six feet at the bottom, is prepared, and an iron bolt passed through both, and keyed. The legs are strengthened with ties, and afford a perfectly safe ladder to get at the outer branches of large as well as small trees, being self-supporting. The ladder, separated from these legs, can, of course, be used for any ordinary purpose."

EXTERMINATING ANTS.—All ants from one colony will eat contentedly from one dish, and, if not disturbed, will search for nothing else. My plan is to remove the dish of food they have attacked, and put *immediately* in its place, or in their path (for they march in line), a plate prepared on purpose to bait them. They like crumbs of rich Johnny cake; the fat which fries from

pork; fresh beef or mutton; butter and cream. I always cover the plate with a bowl or basin. Norman suggests a sponge partially filled with melted lard. Whatever form of bait is used, plunge it in hot water two or three times a day, as the ants collect upon it. It may take days, or even weeks, to destroy a whole colony; but the only trouble will be the killing of them. Some of my neighbors, after eight or ten years' experience, have adopted this plan.

If it is desired to drive them from a particular shelf or cupboard, it can be done by placing around it chloride of lime or fresh tansy. However, the trouble will be increased rather than diminished, for they will scatter all over the pantry or milk-room.

THE TOMATO AND ITS SEED.—This is a delicately acid, cooling, healthful, and much-valued fruit, whose hygienic qualities have been well tested in the human system, that most perfect of laboratories. Other fruits of the garden have been long in reaching their present perfection; whereas the tomato has been a comparatively short time under culture. Experience proves that it is most susceptible of improvement; then why grow coarse, unsightly, spongy, ill-flavored tomatoes when, by attending to a few simple, but important things, the finest qualities may be had. Seed from the best fruit, which ripens *earliest*, will produce the earliest next season, and if properly grown, and from the best variety, will give the desirable qualities of earliness, productiveness, size, solidity, beauty of form, thinness of skin, delicacy of flavor, and richness of color.

ETAGERE GARDENS.—*Etageres* are very common in the parlors, living-rooms and dressing-rooms of Americans. They are usually filled with conchological, mineralogical, geological, ornithological, etc., specimens, vases of everlasting flowers, pretty keepsakes, souvenirs of travel, etc. The newest idea (and the best, perhaps,) is to convert *etageres* into gardens of plants and flowers, in ornamental pots. We saw one the other day in a sunny room, and thought it the prettiest thing we had found in a home in a long while. The best of it was, the plants had been well taken care of, and were healthy. Where people have conservatories, it will be an easy matter to keep these *etageres* filled with blooming plants the whole year round.

AMERICAN APPLES.—A correspondent of the *New York Tribune*, in narrating the topics of conversation in an interview with Baron Liebig, says: "I was accompanied by two of my children, and while talking he went to a closet and brought to us each a superb apple, asking me as he handed mine to me if I recognized it. Seeing that I did not quite understand the import of his question, he said, 'Those are American apples. You have the best apples in the world in America; there is no doubt about it.'

SAVE YOUR PLUM-STONES.—A German pomologist gives certain figures in regard to the cultivation of plum trees, by which he shows that seedlings obtained by planting approved varieties are much more hardy and resist cold and the injurious agencies of insects much better than cuttings or graftings. This is supposed to depend upon the more equable nature of the roots and their more perfect penetration into the soil to such a depth, that they are less exposed to the action of frost and other injurious agencies.

ROSES FOR WINTER.—Roses designed for winter blooming, out in the borders, must be carefully supplied with water during these hot days. If allowed to wilt, the white working roots are dried up, and new ones must be formed before the plant will recover its impaired vigor. Hender-
son says: "We find that when we dig up a rose plant in November and pot it, we cannot get it to retain its vigor unless it is kept at low tempera-
ture, so as to secure an abundance of active roots."

RELIGIOUS VALUE OF FLOWERS.—Flowers are the gift of a benevolent Creator. With them He has given to us all a love of the beautiful. Religion rather strengthens than weakens this inher-
ent affection. Happy for us that our pleasures and interests are always blended. Even without piety those who cultivate flowers feel their refin-
ing influence on the sensibilities, and their stim-
ulus to the virtues of the heart; while the good and the devout find their contemplations the more in-
spiring by their presence. The sick room is made cheerful, and the tedious hours of the sufferers beguiled by their presence.

DYING EGGS FOR USE.—We don't know where the following originated, but give it for what it may be wooth to the reader: The eggs are beaten to uniform consistency, and spread out in thin cakes on batter plates. This dries them into a paste, which is to be packed in close cans and sealed. When required for use, the paste can be dissolved in water, and beaten to a foam like fresh eggs. It is said that eggs can be preserved for years in this way, and retain their flavor.

A LAZY, complaining dyspeptic, meet-
ing a stout and hearty friend, asked him what he did to make himself so strong and healthy. "I live on fruit alone," was his reply. "What kind of fruit do you eat?" "The fruit of industry, and I am never troubled with indigestion.

[Very good, so far as it goes. But it does not hit *all* cases. Some of the busiest-minded mortals living are dyspeptic, while those who live more slowly, and work with the body, in the open air, are not troubled in this way. In our little book "Digestion and Dyspepsia," we have covered the ground of cause and cure of this common malady.

TO CLEAN CHROMOS.—Moisten a soft cloth, gently wash the face of the chromo and wipe it dry. The varnish on the surface of the picture protects the colors.

TO REMOVE MILDEW.—Take the miledew fabric when dry, wet thoroughly with soft soap and salt mixed. Let it lie a short time, then wash it in good suds and lay out to bleach. Repeat, if necessary. Or soap thoroughly and scrape chalk on the spots and lay in the sun.

FENCE POSTS.—A writer in the *Western Rural* says: "Take boiled linseed oil, and stir in pulverized charcoal to the consistency of paint. Put a coat of this over the timber, and there is not a man who will live long enough to see it rotten. I have taken out basswood posts, after having been set seven years, that were as sound as when first put into the ground. The posts can be prepared for less than two cents apiece." They should be well seasoned before the oil and charcoal are applied.

Send for Mother.

"DEAR me! it wasn't enough for me to nurse and raise a family of my own, but now, when I'm old, and expect to have little comfort here, it is all the time 'Send for mother!'" And the dear old soul growls and grumbles, but dresses herself as fast as she can, notwithstanding. After you have trotted her off and got her safely in your home, and she files around, administering rebukes and remedies by turns, you feel easier. It's all right now, or soon will be,—Mother's come!

In sickness, no matter who is there, or how many doctors quarrel over your case, everything goes wrong, somehow, till you send for mother.

In trouble, the first thing you think of is to send for mother.

But this has its ludicrous as well as its touching aspect. The verdant young couple, to whom baby's extraordinary grimaces and alarming yawns, which threaten the dislocation of its chin; its wonderful sleeps, which it accomplishes with its eyes half open, and no perceptible flutter of breath on its lips, causing the young mother to imagine it is dead this time, and to shriek out, "Send for mother!" in tones of anguish—this young couple, in the light of the experience which three or four babies bring, find that they have been ridiculous, and given mother a good many "trots" for nothing.

Did any one ever send for mother, and she fail to come? Never! unless sickness or the infirmities of age prevented her. As when, in your childhood, those willing feet responded to your call, so they still do, and will continue to do, as long as they are able. And when the summons comes which none yet disregarded, though it will be a happy day for her, it will be a very dark and sad one for you, when God, too, will send for mother.

Pacific Department.

C. F. YOUNG, M.D., Corresponding Editor.

TYPHOID FEVER.

THOUSANDS of our readers can receive instruction through their imitation and perception of the right on general principles, much more readily than by the philosophic, or vindictive methods of reasoning; hence, in our department we hold up the picture of facts, true to life, in actual practice. The sceptical neighbors and friends who are cognizant of the facts in this article were thoroughly convinced of the superiority of the Hygienic over all other modes of treatment.

THE PATIENT.

Age, forty-five; nervous and dyspeptic—that is, the digestive processes were promoted or disturbed by mental conditions. When these were pleasant and harmonious, the digestive processes were vigorous; when the reverse, they are slow or entirely suspended.

During one of these days of disturbed mental and nervous conditions, the person ate freely of grapes, swallowing skins and seeds; then, out of regular hours, added a hearty supper, the pressure of care and anxiety not having been removed. This was on Wednesday. The Monday previous, he had, under very aggravating circumstances, lost a night's sleep, and very much wearied, had walked through and inhaled the fetid odors of Sansome Street (San Francisco) market-places. On Thursday, was feverish. Thursday night, worse; suffered with pain in the back and head. Inclined to sleep, slow to think, dull, wandering. Fever, and tongue, and condition of bowels, all indicated typhoid fever. In the immediate precinct similar cases, treated with drugs, were rapidly striking.

OUR TREATMENT.

On the Thursday mentioned, a

thorough scrubbing bath. The patient was stubborn, and persisted, in spite of the absence of hunger, in taking food. This intensified the symptoms. On Friday, thorough fomentations over the bowels, followed by a full hot bath; impossible to induce perspiration. To the bowels, full enemas of tepid water, cold compresses to the bowels and head. Hot foot baths, hot bricks, and much rubbing of feet and limbs.

At this state the patient was delirious, with cold feet and a blue, pinched appearance. After Thursday noon, not a particle of food was permitted; but pure, soft water at 90°, a full glass every half-hour. The compresses and water-drink continued through Friday night.

Saturday, A.M. A full hot bath—that is, 112°, which felt cold, the fever being hotter.

The patient had to be carried to the long-bath-tub. The water of the bath was poured over the head—the head supported by an air-cushion—and repeatedly for twenty minutes. When temporarily relieved, he was wrapped in a dry sheet, and placed on a cool, fresh bed. The compresses were repeated; also the enemas.

The glass of water each half-hour was continued, and the application of jugs of hot water to the extremities. Sunday, the same repeated every three hours. Sunday night, the patient, for the first time, perspired; his breast was cooler, and his tongue began to clean.

The free use of tepid water doubtless prevented *ulceration* of the bowels, by reducing the heat, and washing away irritating substance. A pint was given repeatedly; retained and absorbed. Larger quantities would be passed very soon.

Monday, the symptoms were favor-

ble, and the patient better; but, of course, very weak. The fever was half reduced, but the tongue, and breath, and tender bowels indicated disturbing causes yet present. Treatment continued the same as on the preceding days.

At this point perfect self-possession and firmness is required to keep officious friends from meddling with the life of the patient; for now the recuperative or vital powers of the patient are as easily depressed toward death, or turned toward life, as the most delicately adjusted balance are turned by a fraction of a grain of weight.

Encouragement—not so much by multiplying words, as by the self-control and cheerful faces of the physician and nurses—is very important.

Absolute quiet, absence of noise and excitement, must be secured. Even the clicking of latches, the creaking of a chair, the rustling of starched garments or of paper, are known to have disturbed the sensitive brain of patients, and changed the disposition to *rest*, into nervous excitement that terminated fatally.

Hence we argue, that every home should have its rough, noisy kitchen and laundry work entirely apart and away from the rooms consecrated to REST.

Precious husbands and wives, sons and brothers—even the strangers—are of more value than a few pine boards and shingles!

Our patient was happily situated in this respect. Through the long days the harshest sounds were the sweet song of meadow-larks from the lawn, and the distant notes of a guitar. The rustle of falling leaves, and audible pulsation of all life-forces at the dawn of the newborn day.

To the inquiry of the patient, "How long will I last?" the answer was, "To be happy and useful. God has much for you to do. To-day you must rest."

Tuesday forenoon the treatment of Monday repeated and free perspiration induced, followed by refreshing sleep. At three o'clock, ninety-six hours without food; our patient, entirely free from fever, with a clean tongue, and cool, moist breath, asked for food.

We were very glad to give it. "What was it?" First we will tell what it was not. It was not beef-tea, or broiled steak. It was not buttered toast, tea, light bread, milk, coffee or brandy. It

was a little bit of the upper crust of a "gem" (unleavened bread) dried in the oven, taken in grains not larger than a pea, well chewed, thoroughly insalivated and swallowed with the keenest imaginable zest. Then the half of a small, ripe peach, well cooked.

In two hours, a slight recurrence of fever. The compresses under a snug bandage were continued, and artificial warmth to the feet, hands and knees so adjusted, that the patient could avail himself of it without calling.

The second and third meal was of well-boiled wheat-meal gruel strained, a gill of it taken with a spoon, in sips, three times in twenty-four hours.

The blood had been washed by the kidneys and skin; the stomach rested and soothed by the copious use of warm water; the bowels relieved of their irritating contents by the enemas; inflammation reduced by the fomentations and cool compresses; the general fever kept within bounds by the tepid and warm full baths. There was no guess-work about it. The bath was given three degrees lower than the temperature of the body. That was determined by placing the bulb of a thermometer at the "axilla" of the arm.

Every garment worn, pillows, sheets, blankets, mattress, and room were changed, and aired, and sunned every night and every day; and but two persons permitted to see or care for him.

The advantage and superiority of Hygienic over drug treatment was shown in the rapid convalescence of the patient. Hygienic treatment soothing and cleansing; and directing, controlling the expenditure of power.

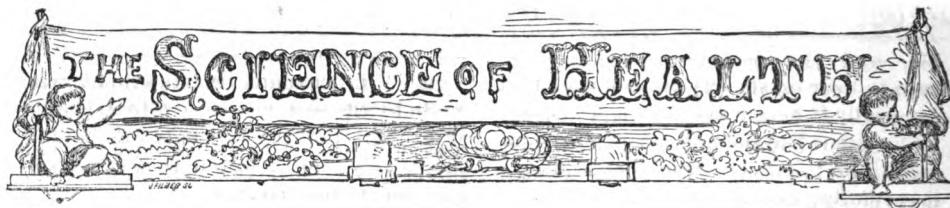
Drug treatment always exciting, stimulating, and introducing elements that tax the vital powers.

The food must be very carefully ordered; and in no instance that we have seen can the patient safely be trusted to determine the quantity.

In ten days from the critical turning-point, our patient was able to ride and do justice to plain food. But care in respect to exposure, fatigue, and excitements of business were scrupulously observed.

He had learned to remember that regular REST for nerves and brain, was quite as necessary as food. Stimulants could not take the place of rest.

Intelligent attention to rest, quality of food, and regularity of times of taking it; to the purity of air breathed, and fluids drank; to personal cleanliness, to sunshine and air in bedrooms, would prevent nearly all the fevers in the country.



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TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

VICTUALS AND DRINK.

THE art of eating is, or should be, based on the science of food. And if there be a science of food, it is, or should be, traceable to the laws of nature, as manifested in and through the digestive apparatus of living organisms. Naturalists can determine the dietetic character of an animal, from the mere examination of its osteology; and that mysterious something, which the physiologists term instinct, seems to direct all living creatures, (man and domesticated animals possibly excepted,) very well in the way they should go in the pursuit of victuals and drink.

But, while the scientific writers on this subject are entirely harmonious as it applies to the animal kingdom below man, we find them as discordant as the winds concerning what is proper for human beings to eat and drink. Herein is the puzzle of the nineteenth century; and THE SCIENCE OF HEALTH shall solve it.

The fundamental error consists in, and the whole confusion comes from, the attempt to explain the problems of life, and the nature of food on chemical data. It can never be done. One might as well undertake to apply the statistics of mortality to the transit of Venus, or the laws of architecture to the construction of bones and brains, and leaves, and flowers, and seeds. Food of man or animals is not a chemical compound; nor can chemical analysis determine

its constituents, or demonstrate what is or is not proper to eat or drink.

Ever since Liebig gave the chemical direction to physiological investigations, the medical profession has been utterly muddled on the subjects of food and drink; and all of the professedly scientific works which have been written since, have only made the confusion worse confounded, while each succeeding work seems to go further from truth and nature, than the preceding one.

Before us is the latest scientific work on "Foods."* It is from the pen of an eminent European author, Edward Smith, M.D., LL.B., F.R.S., of London. It is able and elaborate in all that pertains to the history, preparation, chemical constituents, proximate elements, etc., of most of the substances that human beings in different parts of the world are accustomed to raise, manufacture, eat, and drink. But, while all this may be regarded as valuable to those who desire to eat and drink as other folks do, it can have no influence except to confuse and mislead those who are desirous of eating and drinking to live; and when we inform the reader that the work places not only tea and coffee, but all kinds of "spirituous and malt liquors, wines and ciders," in the category of foods, and commends them to universal use, as "nutritious and wholesome" beverages, he may not

* Foods. By Edward Smith, M.D., LL.B., F.R.S. Price, \$1.75.

care to hear or see anything more of it, especially if he is a Hygienist, a Teetotaler, or a true Physiologist? Yet, we recommend him to purchase the work and read it carefully; he may learn much to avoid. He may get a wholesome understanding of the way in which the ignorant world is misled into all manner of dietetic errors and abominations by those who should be their instructors and exemplars. And then we recommend him to pay one dollar for our recent work on Digestion and Dyspepsia, and study this by way of contrast. If any intelligent and impartial mind can critically examine and compare these two works, without profit, we shall be greatly mistaken; and if the facts, principles, and illustrations of the latter, are not more conclusive than the statements, and attentions of the former, our opinion will be very much at fault.

LITERARY DISHONESTY.

GREAT injustice is done to editors, authors, and publishers, by those conductors of newspapers and periodicals who copy articles from other print, without giving proper credit. We find, among our exchanges, magazines and periodicals which lay claim to great prestige and respectability, and which contain articles which are marked at the end thus: *Selected*, or *Sel.*, or *Ex.*, all which marks, although they indicate that the articles are borrowed, are mere evasions of the other and honest course, giving due credit by naming, at least, the paper or periodical from which they were taken. In this connection, we may mention that in a recent number of the *Rural New Yorker*, there is an article said to have been copied from some English periodical [name not given] which is nothing more than an editorial from *THE SCIENCE OF HEALTH*, on the "Food of Farmers." This has been across the Atlantic, used without credit there, and then comes back to be used by our neighbor. An amusing case of this kind is related in a recent number of the *American Artisan*, in connection

with Prof. Tyndall. A statement was made by the editor in regard to the value of a single potato, and this was copied extensively, and credited to Prof. Tyndall; but the best part of the joke is, that during an absence of the managing editor, the same thing was copied in the *Artisan*, and credited to Tyndall. We copy the following case, also in point, from the *Painter and Builder*.

CREDIT TO WHOM CREDIT, ETC.

The article in question was written during the month of August, 1870, and appeared in the *Technologist* of that date. From the *Technologist* it was copied into several American journals, and also into quite a number of European periodicals, a few of which gave due credit, though the majority failed to do so. In a couple of months the English journals containing this article reached this country, and it again went the rounds of the American press, being generally credited, as in the *Manufacturer and Builder*, to the *English Mechanic*. But the best joke was when a certain writer for the press copied this article out of an English paper and sent it to the editor of the *Technologist* as original matter! We presume that contributor must have been considerably astonished and mortified when the editor, without any remark, sent back the MS., and enclosed with it the page of the *Technologist* in which it originally appeared.

Since that time the article reappears periodically, the latest use to which it has been applied being when it was made to do duty as an introduction to the article "Cements," in *Dick's Cyclo-pedia of Recipes*. There also it appears without proper credit.

WHISKEY FOR BABIES.

IN behalf of the rising generation, we implore the medical profession to let the babies alone. And as we deprecate the "slaughter of the innocents," we hope our medical brethren of the drugopathic persuasion will write no more books, and speak no more lectures concerning what infantile humanity shall eat, drink, or put on. It is bad enough for the dear little things to suffer of the ignorance of mothers, the carelessness of nurses, and the meddlesomeness of friends and neighbors. But when to these are added the doses of the drug-

shop, supplemented with the poison of the dram-shop, we respectfully protest. We have long been of the opinion that, if mothers and nurses were left to their own common-sense and common instincts, with no instructions of any kind from medical men, and no medical books of any kind to refer to, it would be vastly better for their offspring than it is under the existing order of things. True, many blunders would occur in the business of feeding well babies, and in the management of sick ones, but fewer would be killed, or maimed and crippled for life.

These remarks are suggested by a little work just published, entitled "Infant Food," by A. Jacobi, M.D., Professor of Diseases of Children, in the College of Physicians and Surgeons, New York. Now a professor of infantile pathology, may or may not know much about what babies should eat. His professorship only implies a knowledge of their diseases and the treatment of them. But, as professors of the diseases of children in general, and professor Jacobi in particular, assume to instruct us in dietetics as applicable to both sick and well babies, his work has an importance. And this importance is greatly magnified by the fact that the work before us is the substance of a paper read before the Public Health Association of New York, in compliance with a vote of said Association, "that Dr. A. Jacobi be requested to furnish for the use of the Association, a Schedule of directions concerning infantile diet in Summer, and to present the subject for discussion at a future meeting of the Association."

As we hear no dissent on the part of the Association, we must infer that the Directions of the Doctor have its official endorsement. And now let us see what Dr. Jacobi and the Public Health Association propose to do for sick and hungry babies.

On page 49 we read: "In hot weather, mix a few drops of whiskey with either water or food, the whiskey not to exceed a teaspoonful in twenty-four hours."

There is one little fact in this part of the "Schedule" that we fear the Professor has overlooked. The whiskey-cure occurs under the heading of "Nursing Babies." How can the whiskey be mixed with the food when the baby takes its food the natural way? Clearly, the mother must drink the grog if it is to be "mixed" for the baby; or else it must be mixed in the baby's stomach. Perhaps the doctor means to have the baby take its alcoholic medication just before or just after eating, as is the custom of older topers.

Of course there must be some reason for mixing whiskey with whatever a baby eats or drinks in hot weather, and Dr. Jacobi enlightens the Public Health Association of New York, in the following words: "In very hot weather, the system is no longer normal; a certain degree of debility, of insufficiency, is perceptible in every function. Therein lies the indication for administering a stimulant, partly for its curative, partly for its preservative effect."

Whiskey and vinegar, and vinegar and salt, are good antiseptics to preserve onions and cucumbers, plums and tomatoes. But, does a baby want preserving? Should it be pickled? Antiseptics are adapted to fixed and inorganic conditions. Onions, and cucumbers, and plums, and tomatoes, do not have to grow. Babies do. Hence the less they are antisepticated the better for their necessary vital transformations.

So much for whiskey as a preservative. And how about whiskey as a curative. The baby is abnormal. It has insufficiency in its functions. Whiskey, therefore, is a remedy for abnormality and insufficiency. Then, why limit its employment to hot weather? It is well-known that babies of all ages, "from the cradle to the grave," are liable to be attacked with abnormality, and affected with insufficiency at all seasons of the year. In very fact these are the conditions, in a greater or lesser degree, of the whole human race, summer, winter, spring, and autumn. Why not, then, make whiskey a universal panacea?

If only a stimulant is wanted, why will not some one of a hundred other stimulants answer as well as whiskey, and not put the baby in the way of becoming a drunkard? And if it is the alcohol of the whiskey that is needed, why will not some other kind of grog medicine do as well as whiskey—say rum, brandy, gin, wine, cider, lager, etc.? What is there specific or peculiar about whiskey, that specially adapts it to the “delicate susceptibilities” of infants? We suggest, as a proper subject for a prize essay, “The Relations of Whiskey to Babies,” the premium to be one copy of THE SCIENCE OF HEALTH for a year. Meanwhile, we will not forget the prediction of an eminent physician at the International Temperance Convention, held in London, in September, 1862. “The last stronghold of intemperance will be the medical profession.”

ALCOHOL—TOBACCO.

THERE is a blue-covered periodical published in Williamsport, Pa., edited by two doctors, named respectively Helsby and Mays. The title of this periodical is as follows. “Popular Journal of Physical and Mental Hygiene.” But, good reader, what sort of Hygiene do you suppose this “Popular Journal” teaches? We copy from June number—the last at hand—in this it is stated that “*Alcohol in small doses is a valuable nutrient.*” Where in the world did these Pennsylvania doctors study chemistry? Alcohol “a valuable nutrient!” To be used as food, in small quantities! This may do for Pennsylvania Dutch, but not for other folks. Wrong, gentlemen, all wrong! You are off the track, and will lead your blind and ignorant followers to drunkards’ graves.

Further on in the same number, these wise Williamsport doctors quote an article on Tobacco, in which that most pestiferous weed is described as “*a very de-*

lightful stimulant” and “encourages indulgence” in its use! As though the gates of hell were not already wide enough open, these doctors must needs lure other poor miserable sinners on to destruction and death. Do they not know that indulgence in alcohol and tobacco is the bane of society, civilization, and Christianity? That these two things are emasculating the race? That to their use is owing most of the poverty, imbecility, pauperism, insanity and crime, which afflicts us? Who is free from the blight of these curses? Trace the course of our hundred thousand criminals to their cause, and you will find it in these substances, which have perverted their natures, weakened their moral sensibilities, and left them warped, weak and yielding. Then, in a frenzy of passion, and a bewildered mind, rash and violent acts send father, or mother, or wife, or children, to gory graves, while the murderer expiates his insane act on the gallows. His epitaph should simply be

DIED BY A HALTER.

CAUSE,

Alcohol and Tobacco.

medical advisers, Messrs. Thomas H. Helsby, M. D., and Thomas J. Mays, M.D., editors of—and so forth. By the way, we beg to inquire if these gentlemen smoke, chew or drink? If they do, this fact accounts for the milk in that co-coa-nut. If they do not, one may suppose them to be fishing for patronage, by first inducing habits which lead directly to disease.

Now we do not know these men. We presume them to be, the way the world goes, good fellows; but, oh, how dreadfully and fatally mistaken in their philosophy and teachings! Nor are they singular or alone in their errors. In a regular medical school of a hundred students, two-thirds of them—with their teachers—will be found to be habitual

users of the weed, and a considerable number, users of alcoholic stimulants! It is in accordance with their teachings, their experience, their perverted appetites and tastes. They lead, or they echo the public voice and vice. The majority of them,—like Messrs. Helsby and Mays—probably do not know any better.

In view of the poisoned fountains, we may well cry out and ask, "What shall we do to be saved?" Sweep the whole poisoning paraphernalia, with its false medical philosophy, from the face of the earth. Were it sunk in the sea, the world would be the better for it. With them would go the patent medicine quacks; the "no cure, no pay" quacks; the "anatomical museum" quacks and swindlers; the "indiscreet young men" quacks; the abortionists, and the hundred and one old granny medical superstitions, which find "cure alls" in skunks cabbage, smart weed, stink weed, and other weeds. One of the greatest

delusions of the age—of any age—is found in the general medical practice of to-day.

PIMPLES.—A chemist in New York has sent us an advertisement about pimples, for insertion, with the modest announcement, "I wish to test your paper as an advertising medium." We have only to say that we desire first of all to test the man's honesty, and shall be pleased to insert the quack, provided he complies with our terms, *viz.*: *Cash in Advance*. He must forward the "tin," and then we will make known all about his pimples.—*New Dominion. St. John, N. B.*

[Is that right, brother Day? Suppose "the quack" pay you in advance for inserting the advertisement, is it right for you to sell all your readers to a quack? Ought you not rather to expose "the quack," and so protect your subscribers? In other words, is it right for editors to "partake" of such ill-gotten gains? Is not the partaker as bad as the—quack?]

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

OFFENSIVE BREATH.—R. J. S.—"What is the cause of strong, offensive, and unpleasant breath which is met with in so many persons?"

Decaying teeth, impure blood, and foul secretions, and such habits as tobacco-using, liquor-drinking, over-eating, etc.; and probably constipation is an immediate cause of more cases of fetid and offensive breath, than all other causes combined. Avoid the cause, and you will certainly avoid the effect. The same may be said of offensive perspiration. —

BRUISES.—R. Y.—"What shall be done for bruises on the head or other portions of the body?"

If there is, with the swelling, heat, apply cold water, with brisk rubbing; if not, fomentations or warm water with rubbing, then apply cold wet bandages. —

MEDICAL NONSENSE.—A. B.—"A physician in Pittsburg, Pa., says that no one should bathe more than once a week, and that once a year is often enough for many persons. He says, furthermore, that there is an oily substance on the skin

the presence of which is necessary to health, and which frequent bathing tends to destroy."

Tell the doctor, whoever he may be, that his talk is nonsensical. —

BILL OF FARE.—W. N.—You will find a bill of fare, or rather a method of dieting, explained in "Digestion and Dyspepsia," that will suit your case. —

DYSPEPSIA.—G. N. P.—"I have suffered by dyspepsia for several years, and have employed regular Eclectic and Indian doctors, with no benefit. Can you direct me in the right road to health?"

Certainly. Get "Digestion and Dyspepsia," and practice its teachings. —

FAT HORSES.—J. L.—Neither fat horses nor fat animals of any kind; for fat human beings can not work as well as lean ones, provided the latter are not actually emaciated. All strength is in the flesh, and fat is not flesh. —

TOO THIN.—J. B.—We cannot tell why you continue lean and emaciated, despite the hygienic habits you mention, without knowing your

previous history, habits of life, inherited peculiarities, diseases, remedies taken, etc.

FURRED TONGUE.—R. S.—Discontinue the use of butter, milk, sugar, and fine flour.

POSITION IN SLEEP.—“A Little Girl” is informed that, lying on either side does not tend to make one round-shouldered, provided the pillow is not too high.

CORONA SENILIS.—J. J.—The white circle around the iris may be caused by local debility or irritation, as well as old age and decline. It only requires attention to the general health.

CURED TOO MUCH.—J. N. R.—As you seemed to be aware, you have had too much curing by drug medication. The books you have ordered may enable you to treat yourself; if not, you should go to a health institution.

DISCOLORATION OF THE SKIN.—C. D. H.—“Is there any remedy for discolorations of the skin not caused by contusions?”

When caused by impurities of the blood, the remedial plan is a proper course of bathing and dieting.

SINUOUS ULCERS.—A. S. B.—“Is there any proper treatment, except surgical, for sinuous ulcers or abscesses?”

Some cases are curable by the strict Hygienic regimen alone, while others require caustic in addition.

SALT RHEUM.—A. G. T.—“What shall we do to cure the salt rheum?”

Cleanliness of the parts and of the entire body,

and a plain, simple diet and an even temperature, are the essentials of treatment. Purify the blood.

SCIATICA.—S. C. S.—This is a neuralgic affection, accompanied with pain along the course of the sciatic nerve, from the hip or pelvic region down the leg to the foot. Fomentations, followed with general friction, will relieve the pain, but it can only be cured by restoring the general health.

SLEDGE HAMMER PILL-BOXES.—A. H. writes: “Enclosed you will find subscription for THE SCIENCE OF HEALTH. I suppose you intend this as a substitute for the old ‘Water-Cure Journal.’ It should not have been permitted to stop. I supplied myself with the ‘Encyclopedia’ when it was first published, and most of the Hydro-pathic works at that time—the little manual of Dr. Shew when first published. As a matter of course, we have had no use of drugs or doctors since. I suppose our good health, or ability to restore good health, when we do get sick, without resorting to this old traditional system of drug medication, is no doubt accounted for by the drug-takers, that my family are special favorites of Nature, or have strong constitutions, and do not get sick like other folks; if we did, we could not get well without the regular M. D., with his ‘sledge-hammer pill-box.’”

CORSETS.—“Do you think that *any* one *can't* wear a corset *without any* injury? I mean wear them loose. And do you think it hurts boys and girls to drink tea and coffee?”

No, to the first question; yes, to the second, and both emphatic.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

OTORRHCEA.—Mrs. H. V. Reed, of Illinois, writes: “I have seen in your valuable magazine, several inquiries in reference to the cure of Otorrhcea, and, with your permission, I shall be glad to give your readers the benefit of a simple remedy that I have found effectual. My rosy, healthy babe, when nine months old, was attacked with scarlet fever, and it left him with a foul and offensive discharge from both ears. My father was one of the earliest advocates of ‘Water-Cure’ in this country, so that I was brought up ‘in the faith.’ My husband being also a firm believer in the curative powers of nature, our little one, instead of being drugged, was carefully bathed and nourished, and his ears kept as clean as possible with a syringe. But I could see no improvement after months and years of treatment, and I studied the

case with all the zeal and anxiety of a mother. All the medical works in our library, and many others, were consulted, also the leading practitioners of the ‘healing art.’ Physicians were sought for counsel and advice, for we did not wish the child to be poisoned with medicines. It is only justice to these gentlemen to say, that the most candid among them frankly admitted that they knew of no effectual remedy—that *time* might effect a cure, and might not. The child’s health was quite good under the excellent care which he received, but he continued pale and slender, for the air which the patient breathes in these cases is constantly poisoned by the odor of the discharge; therefore, I believe it is impossible to effect a cure through the general health, unless the virus of the offensive matter can be neutralized. At last

science evolved the wonderful properties of carbolic acid. I heard of its value in wounds and surgical operations—learned that it cleansed and healed by the absolute destruction of the animalcule that cause and compose the discharge of ulcers, old sores, etc. I used it in my child's ears combined with glycerine, and in a few weeks a *perfect cure* was effected. Two years have now passed away without any symptoms of a recurrence of the disease, and the boy is growing rapidly, and becoming stronger and healthier every day. The best formula that I can give is this: Carbolic acid, one drachm; *pure* glycerine, two ounces; *pure* soft water, two ounces. The mixture to be dropped into the ears once or twice a day. No fears need be entertained of the suppression of the discharge; it *does not suppress*, it neutralizes the poison of the virus, and by *perfect cleansing and purifying*, prepares the way for Nature to heal. Of course, bathing and diet must be strictly attended to, and we trust that no reader of THE SCIENCE OF HEALTH could be guilty of neglect in this department. I hope that this simple and innocent remedy will prove as great a blessing to others as it has to me."

TRUTHFUL, CHEERFUL, AND HEALTHFUL.—H. C. S., says: "We are highly pleased with THE SCIENCE OF HEALTH. Among our favorites it is a most welcome guest—most truthful, cheerful, and healthful. It comes laden with rich and rare gems, and a feast of good things; enough for each, and all a share. May it ere long become a universal guest, till Nature's grand laws are fully established on the platform of human life, and suffering humanity be rectified through the *right* use of *air, light, and water*.

THOUGHTS ON A SHIRT.—A woman, trembling with weariness, and nearly discouraged with ill-success, stands and looks ruefully down on the shirt she is ironing, when a new train of thought arrives, and she *must* heed its voice. "Why are shirts made with ruffles and plaits and stitchings and puffs? and why are they starched and ironed with such infinite trouble? Is a man any more or less a man, because of the ornamental shirt front which fashion dictated? Which is the uglier, a plug hat or a starched shirt? and would not either of them suit a Feejee Islander better than a civilized man? I shall endeavor to prove the shirt to be a great promoter of lung disease and consumption. The ornamental part, which is *the* part to show, is made of *linen*, and just covers the vital organs in front. *Cotton* is bad enough, but *linen* is cruel. Then the dress, which should be made to protect the breast, is left open one-third of the front, to display ornamental needle-work and jewelry, and men go hacking around with hereditary consumption. Why not say an hereditary love for display? As a general thing, men dress warmly and comfortably on a cold,

stormy day, when they go out, but the moment they set foot inside their homes, about six or eight thicknesses of woolen goods, and about one and one-half or two inches of cotton wadding are laid aside, or turned back to display the shirt. It is not at all necessary that a shirt should be seen, then how much labor would be saved to woman. It has never yet been my fortune to know a woman who could iron her husband's shirt right. Among the very earliest recollections of my childhood, arises a ghost of a shirt with its buttons off, or too far back, or too far front; its collar always too stiff, or too limp—the one big bugbear of the wash-tub, and the one thing that could not be put off till another day, in case of sickness or trouble. Then, whoever made a shirt right? For my part, I have never seen one that proved to be right. And where is the need of perfection in an undergarment, if it be clean and whole? Men suffer from exposing their persons to display a shirt, and women suffer from anxiety and fatigue and unnecessary labor in preparing it. Would not the cause of humanity be promoted by wearing a plain garment, without ornament or starch, and devoting the time usually spent on shirts, to a careful study of the laws of health? Thus one or two of consumption's causes would be done away.

Mrs. K.

PHYSICAL EDUCATION.—E. P. Thwing, Portland, Me., writes: "We have just laid down, with satisfaction, a recent number of *Harper's Weekly*, which contains a satirical picture on 'University Education.' The central figure is a graduate with idiotic face, but with enormously developed arms, one of which holds an oar. The other accessories need not to be mentioned in detail. The point illustrated is the folly of running even a good thing to an extreme. We wish to emphasize the physical, rather than the moral, evil of such a course. The great expense involved in the annual boat races, the bad feeling engendered, and the diversion of thought from proper college work, these points have already been dwelt on by the daily press since the Springfield contest. Now, we wish to add that the physical development of a student is not advanced as well by such violent competitive exercises, as by others we may mention.

"One of the first requisites of beneficial exercise is, that it shall augment and equalize strength by simultaneous and harmonious effort. Many gymnastic feats, but particularly boat-racing, cause tumultuous throbbing of the heart, hurried respiration, congestion, and vertigo. Dr. Fraser, of Edinboro' University, made a number of observations on the effects of rowing, in producing vascular irritation and heart-disease. Cases of vertigo and death at the oar, are remembered in connection with races the past year or two.

"These facts, taken in connection with the other evils named, suggest the need of less objectionable forms of exercise. If Prof. Crowell, of Am-

herst College, is right in making synonymous 'a good oar and a poor student,' and 'an irreparable injury to intellectual culture' is caused by boat-racing, then the argument becomes still stronger.

"Some years ago a brother minister, who had derived great benefit from the Health Lift, drew our attention to this method of cumulative exercise, which is had at little expense of time or money, and with none of the tendencies referred to. The Rev. Charles H. Mann, of New Jersey, in 1870, invented what is now called the Reactionary Lifter, an improvement on the former, by which a man overcomes his weight, and also the pressure on the platform, thus lifting himself, and with neither jar nor strain. It may be regarded a compound crowbar, by which he prises himself up. Mr. Gaubert, of this city, has introduced the contrivance, and already many interested in physical education, have begun a systematic use of it, much to their benefit and satisfaction. The little time required, the convenience of the Lift, and the sense of buoyancy that follows, instead of the exhaustion in other violent exercise, especially in hot weather, these considerations lead us to commend it as an admirable help, both in the preservation and restoration of health, particularly for students and those of sedentary habits."

Complete instructions to swimmers and rules for bathing, illustrated by numerous cuts, are important adjuncts to the subject. The following is the table of contents of Dr. Trall's work:

A Complete History of Bathing; and describing fully all the processes and the purposes for which Baths are used. Full directions for the Wet-Sheet Pack; Half-Pack; Full-Bath; Half-Bath; Sponge-Bath; Plunge-Bath; Shower-Bath; Vapor-Bath; Rain-Bath; Sitz-Bath; Foot-Bath; Head-Bath; Douche-Bath; Air-Bath; Sun-Bath; Swimming-Bath; Sea-Bathing; Russian and Turkish Baths; Mud-Bath; Electric-Bath; Compresses, Bandages and Girdles, Fomentations, etc., and Rules for Bathing. An instructive and interesting treatise on an important subject.

CLINICAL ELECTRO-THERAPEUTICS, Medical and Surgical. A Hand-Book for Physicians in the Treatment of Nervous Diseases. By Allan McLane Hamilton, M. D., Physician in charge of the New York State Hospital for Diseases of the Nervous System, etc. With Numerous Illustrations. 8vo, cloth. Price, \$2.25. New York: D. Appleton & Co.

Electricity in the treatment of disease, has been so thoroughly introduced, that it can no longer be ignored by the respectable physician. Its application, especially to nervous diseases, has been attended with such marked success, that many of the leading medics of America regard it as an indispensable, if not a most important, addition to *materia medica*. In the new work above entitled, we have an utterance from the experience of an able physician, with respect to the uses of electricity, as he has confirmed them by personal application in the wards of one of our largest hospitals. The work will be gratefully received by the medical fraternity, and by the public at large, for whose relief from suffering it is contributed. In the words of the author, the "book is the compilation of well-tried measures and reported cases." It is a neatly printed and well illustrated volume, bound in substantial cloth.

THE CEREBRAL CONVOLUTIONS OF MAN, Represented according to Original Observations, especially upon their development in the Fetus. Intended for the Use of Physicians. By Alex. Ecker, Prof. of Anatomy, etc., in the University at Freiburg, Baden. Translated by Robert T. Edes, M. D. 8vo, \$2 00.

THESAURUS OF ENGLISH WORDS AND PHRASES, so classified and arranged as to facilitate the Expression of Ideas and assist in Literary Composition. By Peter Mark Roget. Revised and Edited, with a List of Foreign Words defined in English, and other Additions, by Barnas Sears, D. D. New American Edition, from the last London Edition, with Additions and Improvements. 12mo, pp. 567, \$3 00.

LYELL'S ANTIQUITY OF MAN.—The Geological Evidences of the Antiquity of Man, with an Outline of Glacial and Post-Tertiary Geology, and Remarks on the Origin of Species, with special reference to Man's First Appearance on Earth. By Sir Charles Lyell, Bart., M. A., F. R. S., etc. Fourth Edition, Revised. With Illustrations. 8vo, extra cloth, \$5 00.

CONTRIBUTIONS TO PRACTICAL SURGERY.—By George W. Norris, M. D. 8vo, 318 pp. Cloth, \$2 75.

Hygienic Seasoning.

Two Irishmen were working in a quarry, when one of them fell into a deep quarry-hole. The other, alarmed, came to the margin of the hole, and called out: "Arrah, Pat, are ye kilt entirely? If you're dead, spake." Pat reassured him from the bottom by saying, in answer: "No, Tim, I'm not dead, but I'm spacheless."

An old, rough clergymen once took for his text that passage of the Psalms, "I said in my hase all men are liars." Looking up, apparently as if he saw the Psalmist standing immediately before him, he said: "You said it in your haste, David, did you? Well, if you had been here, you might have said it after mature reflection."

A MODEL PHYSICIAN.—The Ogden Junction, a Utah newspaper, says: "A pocket-diary, picked up in the street of a neighboring city, would seem to indicate, from the following choice extracts, that the owner was a medical man: 'Kase 230. Mary An Perkins. Bisnes, wash-woman. Sickness in her bed. Fisik, sum blue pills; a soaperific; age, 52. Ped me one dollar, 1 kuarter bogus. Mind get good kuarter and mak her tak mo fisik. Kase 231. Tummes Krinks. Bisines, Nirishman. Lives with Pady Molouny what keeps a dray. Sickness, digg in ribs and tow blak eyes. Fisik to drink my mixter twict a day of sasipery bere and jellop, and fish filo with asifetity to make it taste fisiky. Rubed his face with kart grese liniment, aged 39 yeras of age. Drirked the mixter and wuddnt pay me bekase it tasted nasty, but the mixter'll work his innards, I reckon. Case 232. Old Misses Boggs. Ain't got no bisnes, but plenty of money. Siknes aw a humbug. Gav her sum of my celebrated "Dipsefforlikon," which she sed drank like cold tee—wich it was too. Must put sumthink in it to mak her feel sick and bad. The Old Womfhen has got the roks.'"

A few years ago, a gentleman who had lost his nose, was invited out to tea. "My dear," said the good lady of the house to her little daughter, "I want you to be very particular and make no remark about Mr. Jenkins' nose." Gathered around the table, everything was going well; the child peeped about, looked rather puzzled, and at last startled the table: "Ma, why did you tell me to say nothing about Mr. Jenkins' nose? He has n't got any."

MORBID SUSCEPTIBILITY.—Mistress—"How is it you came home from your party so early last night, Susan? Didn't you enjoy yourself?" Susan—"Yes, Ma'am. But the young man as took me hin to supper insulted me." Mistress—"Insulted you, Susan! Why, what did he say?" Susan—"Yes, Ma'am. He asked me if my program was full, and I'm sure I never 'ad nothing but a sandwich and a glass of lemonade, so I come away home."

It is one of the curiosities of natural history that a horse eats best when he has not a bit in his mouth.

THE LANCASTER EXPRESS tells this melancholy story: "A wife of nearly ten years, having given her servant a holiday, was attending to culinary matters herself, and, hearing her husband coming into the kitchen, thought she would surprise him, as soon as he entered

the door, by throwing her hands over his eyes and imprinting a kiss on his brow, as in the days of the honeymoon. The husband returned the salute with interest, and asked, as he disengaged her hands, 'Mary, darling, where is your mistress?' The wife discharged 'Mary, darling,' the next day, and has adopted a new plan of 'surprising' her husband.

An Irishman, addicted to telling queer stories, said he saw a man beheaded with his hands tied behind him, who directly picked up his head and put it on his shoulders in the right place. "Ha! ha! ha!" said a bystander; "how could he pick up his head when his hands were tied behind him?" "An' sure what a purty fool ye are!" said Pat. "Couldn't he pick it up wid his teeth?"

A NEW pocket boot-jack has been invented. You only put your foot in your pocket, give a spring into the air, and off comes your boot.

Did the man who wrote the song, "There's music in the midnight breeze," refer to cats?

QUILLS—things taken from the pinions of one goose to spread the opinions of another.

A YOUTH, in accoutrements that indicated his rustic origin, passing down Broadway one afternoon last week, saw a handsomely embellished truss hanging in a show-window, and suspended from it a tag with this legend: "Sandford's Patent Rupture Truss—none like it." "Well," said Rusticus, eyeing it with suspicious looks, and edging away apprehensively, "I shouldn't think they would like it."

A FUNNY limb of the law had an office next door to a doctor's shop. One day an elderly gentleman of the old foggy school blundered into the shop. "Is the doctor in?" "Don't live here," said the lawyer, who was in full scribble over some legal documents. "Oh, I thought this was his office." "Next door." "Pray, sir, can you tell me has the doctor many patients?" "Not living." The old gentleman told the story in the vicinity, and the doctor threatened the lawyer with libel.

"KEEP them alive, boy! keep them alive!" said an old physician to a young practitioner. "Dead men pay no bills."

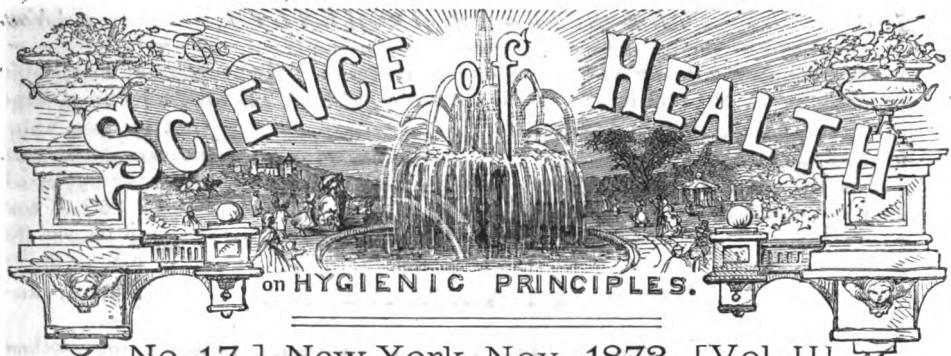
A FARMER recklessly publishes the following challenge: "I will bet \$42.25 that my hired man can take longer to go to the harvest-field, get back to dinner quicker, eat more, do less, and bear down harder on a panel of the fence, than any other hired man within fifteen miles of the flagstaff in our town."

"WHEN Shakespeare wrote about patience on a monument, did he refer to doctors' patients?" "No." "How do you know he didn't?" "Because you always find them under a monument."

A YOUNG lady who has just returned from Europe, advises her friends not to go there, "unless you are sure that you know enough to appreciate the beauties of Europe. It lends such a charm to Italy to remember that among those groves of olives the immortal Beeth oven sculptured the Medicean Venus, and Shakespeare composed the sublime poem of Paradise Lost."

A POOR man, who was ill, being asked by a gentleman whether he had taken any remedy, replied, "No, I sin't taken any remedy, but I've taken lots of physic."

A PAPER has this advertisement: "Two sisters was washing." We fear that millions of brothers are in the same predicament.



No. 17.] New York, Nov., 1873. [Vol. III.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

SICKLY COUNTRY GIRLS.

BY ELIZABETH DUDLEY.

I BELIEVE in using the proper word when I wish to describe persons and things; so, instead of writing about "delicate girls,"—whom I hear much of, but seldom see,—I propose to call attention to those sickly girls who abound everywhere, and cause so much expense and trouble to other people, so much unhappiness to themselves.

To my astonishment, I have seen greater numbers of them in the country than in the city, and, for awhile, was unable to guess at the cause. I used not to believe that these country girls suffer poor health to such an extent as they profess; I used to fancy that they think it vulgar to look robust and rosy, and very genteel to seem delicate and ladylike; and that, therefore, they pretend a feebleness which does not exist.

But, after spending some Summers in different old-fashioned country villages, I begin to be undeceived about our girls, and to fear those philosophers are right who forbode the dying-out of the American people for want of healthy women as wives and mothers.

When a city lady feels in Spring-time weak and languid from overstrain of mental and physical powers, the physician orders her to the country, where, by long rambles in pure, invigorating air, by rowing, and riding, and swimming, by a diet of milk and home-made coarse bread and fruit, by early hours and plen-

tiful sleep, she may restore her waning strength and revive her accustomed energy and vivacity.

She naturally supposes that the ladies who live in the country, having all these opportunities of caring for themselves, are models of physical health and beauty. She has read Chaucer and other old poets, and indulges in visions of a "rosy-cheeked milkmaid" tripping over the dewy lawn in a short, stuff skirt, with gay calico gown tucked up above, and stout shoes silver-buckled to set off the clocked stockings over shapely legs. Such a one, she fancies, will bring her a bowl of delicious new milk, as she stands at sunrise with the daughter of the house beside the barnyard gate, inhaling "the balmy breath of the lowing herd."

And she pleases herself with picturing the daughter of the house as a modern "De Vernon," somewhat more learned, even, than her prototype, and still more strongly tinged with Woman's Rights. While the mother of the family is a genuine country lady of the old school, hearty, bustling, cheerful and kind; a notable housekeeper, celebrated for her pies, and pickles, and preserves; winner of prizes at county fairs for her cheeses, and dried fruits, and garden vegetables.

Ah, well! Are there any such ladies still in existence? If any, where? "Tell me, ye breezes, where they dwell!" that I may spend next Summer with them.

For the country girls whom I have seen for many Summers past are sick—nearly every one of them sick, and few of their mothers are better.

It is true that I cannot go very far from the city,—imperative business demands my occasional presence in New York, even during July and August—yet it seems that two hours travel by rail ought to land me among ladies sufficiently old-fashioned to be in good health. I say “ladies” advisedly, for whether I have seen farmers’ wives and daughters, or the wives and daughters of villagers and dwellers in small towns, they did not differ apparently in any particular but that of health from the ladies we generally meet in the city.

Each one has her black silk dress made in the prevailing fashion, each her fashionable hat or bonnet, and all the et ceteras; each, or nearly every one has been “educated” at a fashionable school and has studied music. Popular newspapers lie on their parlor-tables, and the last new books fill the book-shelves. One or two hired servants do the housework, and, if there is a garden, a man is hired to keep it in order, or else the grounds are converted into an ornamental lawn, and they “find it cheaper to buy what fruit and vegetables they want,” (stale, from city markets!)

Instead of the rosy-cheeked, brawny-armed handmaid who helps with the most laborious part of the housework, while the mother and daughters develop their own muscles to symmetry, and cultivate fine complexions of their own by the upstairs work and a portion of the sweeping, etc.,—we see in the kitchen a slatternly drudge who fills all the departments of house-service, after a Jack-at-all-trades fashion peculiar to herself; and, in return, demands the highest wages that she can possibly get, and revenges herself for being “too much put upon” by enormous waste and wear of everything in her charge.

The husband and father who keeps all this expensive machinery of home in operation is not a hearty, massive, powerful farmer, able to outwork any three other

men—nor a jolly, rubicund, hospitable squire, with an inherited fortune of large and certain amount—no! he is a thin, nervous, careworn American gentleman. He rises with the sun, often at daybreak and sometimes before light. What for? To enjoy the early morning hours, the cool, sweet air, to hunt, or fish, or dig in the garden and so gain health, and strength, and long life? Not so!

He rises early, pulls on his clothes, swallows some coffee and a mouthful of food, and either runs or drives like mad to the steam-cars, that he may get to the city in good season to—what? Spend money and enjoy himself? Oh, no! not at all! To make money for others to spend and enjoy! He never has any time for anything but making money! Why, if he should stay in the country a whole week, Tom, Dick and Harry would get all his business away from him! He must keep going, he must seam his face with lines of care, he must plan anxiously, he must work hard, he must rush about the furnace-like streets, holding business interviews with men as careworn, as fagged out, as eager and grasping as himself! All day and every day this goes on; the late train takes him home at night sometimes in season to join the family meal, often too late for anything but a bite.

On Sundays he generally goes to church in the morning, then eats a hearty dinner and tries to enjoy the beautiful scenery near his beautiful house, but oftener finds a long nap more refreshing and enjoyable. If, after this, a chatty neighbor comes in, or he and his wife make a pleasant call, or there is an inspiring little evening service near by, this good man, this model American husband, finds himself sufficiently invigorated and cheered to return with zest on Monday morning to his business in the city.

I do not intend to enter into an inquiry whether this mode of life is the best for him, whether it “pays” in any sense—whether he is really living—or whether he might find greater happiness in some other use of time. I wish only to observe the effect upon his daughters. If any work is ever done in the house by

anybody but servants, the wife and mother does it. And if the servants of that house frequently leave on short notice, the mother of the family will be able to keep herself in ordinary good health by intervals of labor. But the poor daughters—luxury and ease literally make them sick!

An hour or two after papa has gone in the morning they come dawdling down half-dressed, and with manners to correspond. They trifle with breakfast, but, having no appetite, nothing tastes good; and instead of making a hearty meal of nourishing food, to strengthen them for the duties of the morning, they eat enough to satisfy a canary bird or a mouse, and dawdle away from the table.

Not one of them runs to throw open the sitting-room windows, and, inhaling joyfully the fresh, morning air, call all the family to breathe it with her, and, at the same time, admire the lovely scenery. Nor does she gaily run about the lawn at play with a younger child or a pet dog.

If the guest proposes a ramble in the woods or along a flowery lane, the young lady shakes her head. "She has not been in the woods since she was a school-girl, the grass is not dry, the lane is too muddy or too dusty, it gives her a headache and a backache to walk far." Then we learn that by *far* she means half-a-mile—that she has a headache now, and her backache comes on before night almost every day. We remark that the delicate ferns and mosses to be found in woods amply repay for some fatigue, but are at once informed that she "does not care for common things, and mamma is not willing to have the carpets littered."

A carriage ride is proposed, and if the weather is not too damp, nor too warm, nor too cold, nor too windy, she can be coaxed to go, "merely to oblige you, she does not care for it herself!" But as the weather is seldom just what she thinks it should be, she will stay in, and stay in, and stay in! day after day and week after week: yes! in Winter-time *month after month*—until at last her feeble body has lost all power of resistance to the elements. She has existed so long with-

out breathing one single breath of pure air, that even going from a warm room through a cold hall affects her throat and lungs; finally she has a cold all the time—one attack after another—and sinks into consumption before she knows it.

If she would die at once the case would not be so bad, but she lingers on year after year—a sick girl—utterly useless and helpless, requiring the time and money of those who otherwise might be doing some good in the world. Am I unmerciful? In truth, I have shown more mercy than she deserves to this girl, whom others call "delicate," and I call *sick*; for she has brought her sufferings on herself—she is herself to blame for all that others suffer on her account.

She might have kept in good health—might have cultivated the highest physical perfection—simply by exercising her body, by taking a good walk or two every day. She might have been a *help* to others instead of a burden to them; oh! she might have made of herself an efficient power in the world, a beloved and admired member of society, instead of becoming the sick, dying girl that she is!

All this could have been accomplished mainly by the daily habit of walking. I will tell you how and why some future time.

THE CHOLERA.—What the people need is line upon line and precept upon precept in relation to the simple truths, that, if the bowels are kept free and regular by plain, simple food, and all gormandizing in eating and drinking avoided; the pores of the skin kept open by frequent bathing with tepid water, and seasonable attention given to rest and sleep, the danger of dying of cholera or of bilious diarrhoea is reduced to as infinitesimal a degree as the danger of being killed on a railroad journey from Philadelphia to New York. During the cholera epidemic in New York in 1832, of the thousands of persons who adopted the hygienic habits above suggested, called in those days "Grahamism," not one died of cholera, although a few had the disease in a mild form.—*Trall.*

THE Webster Times says that there is a family of four children in that vicinity who were all vaccinated some time ago, and are now all four broken out with a fearful humor, and one of them must die. They were all healthy before, and of healthy parents.

DISEASE AND ITS TREATMENT.—No. 9.

BY ROBERT WALTER, M.D.

How Sick Persons are Cured.

(Continued.)

In our last article we demonstrated through the employment of recognized scientific methods, that medicines do not cure sick persons. In our present number we shall apply these same methods, and hope to prove beyond the possibility of refutation that *vital force in abnormal action*, which is disease, is invariably the healing process in the human system.

These methods, as laid down by Lord Bacon, Herschell and others, for determining what is the cause of a certain effect, are stated thus:—

"Whenever two facts bear to each other the relation of cause and effect, there will be found to exist between them: 1st, Invariable connection; and 2d, Invariable negation of the effect with absence of the cause; and 3d, Increased or diminished intensity of effect with increased or diminished intensity of cause."

These tests are absolutely correct if science be true; and any attempt to evade the results of their application, but proves the weakness of the system that would reject them. We must accept them or give up all claims to science.

Let us see then, in the light of these established principles, if abnormal vital action—disease—is really the healing process.

First, "Invariable Connection." Do curative operations in any degree always take place wherever disease exists? To answer this question in the affirmative, and so settle conclusively this point, it is not necessary for us to show that sick persons always get well, nor even that they improve in general health. All that is necessary is to show that in all cases of disease there are ceaseless efforts at improvement, and that in some part of the diseased body—no matter how small—reparation is being effected.

That remedial effort is constantly taking place in every sick person, is clearly proved in our third and fourth articles in the May and June numbers of this journal.

We showed in them that self-preservation is the first law of life, and that being a law of life, it follows as a necessary consequence that curative efforts must take place whenever injury has been sustained. If they should fail in any case to do so, that would be the proof that self-preservation is not a law of life, or that life did not exist in the organism affected. The former cannot be the case. Self-preservative processes are the necessary and fundamental constituents of life, just as the law of attraction of gravitation is at the foundation of matter. Deprive, if it were possible, matter of attraction, and infinite divisibility would leave it as immaterial as spirit; so deprive life of self-preservation, and it would pass beyond the reach of mortal ken.

All physicians, I believe, recognize the existence of the *vis medicatrix naturæ* as a principle of life. If this be true, curative efforts must take place in all cases of disease. For it is a law of nature that principles never fail when the conditions requiring their application are supplied. *Vis medicatrix naturæ* being a principle of life, it must become operative wherever and whenever a living organism is diseased. Should it ever fail, that would be the proof that it is not a principle of life.

We think this point, namely, the invariable connection between disease and curative operations, is sufficiently clear. To prove it by a reference to facts is evidently impossible, because human observation can never search into the depths of human life and see all that occurs; but all the facts that are to be seen tend to prove it. Certainly no fact has ever been established against it; and arguments from general principles such as we have here employed are recognized in all departments of science as conclusive, so long as no well-established facts are brought to bear against them.

We are warranted, therefore, in concluding, as far as this point is concerned,

that disease is a remedial process. We do not, however, by any means rest our case here. This is but one link in the argument in the long chain that we have forged. We have a dozen more, any one of which is sufficient probably to disprove the whole system of drug-medication, and enthrone nature as the beneficent, but exact mistress, who presides over our physical destinies.

Second, "Invariable negation of the effect with absence of the cause." Do healing or curative operations ever take place when disease is not present? The answer to this would seem to be self-evident. There can be no curative process where there is nothing to cure—no healing where there is nothing to heal; and if our argument on the last point be correct, disease always commences where injury has been sustained.

But some one will say, "If disease be a remedial process, how can it be at the same time the thing to be cured?" Properly it can not. Nature never attempts to cure disease, nor does any scientific physician; for a scientist is simply a student and follower of Nature. If he attempts to thwart nature as many do, he ceases to be scientific. In nature's arrangement the disease cures the injury, the wound, the person—removes the obstruction, repairs the damage, and then necessarily ceases, because it has accomplished its mission. Disease works toward the same object as does the true physician. They both operate for their own destruction as officials, (not as suicides,) by removing or attempting to remove the necessity for their existence. When this is done, they retire to private life.

Third, "Increased or diminished intensity of effect with increased or diminished intensity of cause." Here is a test for the truth of our system which we gladly apply. The reader will recollect how absurd this test made drug-medication appear. He will now see how well it applies to the new theory of disease. It explains some facts that have always been very perplexing to physicians. They have never been able to tell why it

is that the strongest person when he gets sick, is apt to have the most violent sickness; nor why it is that the patient who has the most violent symptoms, is usually most apt to get well. If disease be a purely destructive agent as they claim, the exact opposite should be the case; and if drugs cure sick persons, the more drugs the surer the cure. On the contrary, if disease is vital action as we claim, the more vitality the greater the vital action under the same injury; and if disease is remedial force, the more active and vigorous the disease the surer the cure, provided the action be well balanced. If the action should be concentrated on a single organ or part, an active disease in a strong man may be more dangerous than a less active one in a weak person, because it may cause disorganization of the structure by its own violence. This will be explained in another article.

A person who in health shows strength, vigor and activity, will be quite sure to show corresponding vigor and activity in disease. A vigorous and active man, or a highly vitalized and sensitive woman, will respond to drug-poisons or other morbid agents with double the force that a dull, sluggish, or greatly depleted organism will. A man whose vitality is greatly worn down by repeated indulgences can stand any amount of disease-producing agents with comparatively little results. Who can stand so much whiskey without getting actively drunk as the old, nearly worn-out debauchee can? Medical men tell us that four grains of calomel will sometimes kill a person, and yet as high as four hundred and eighty grains have been given at a dose in cases of cholera. If the person had had any reasonable amount of life left in him, the four hundred and eighty grains would certainly have killed him.

A physician in my native town who had been in the habit of prescribing calomel for poor, weak, miserable debauched patients, gave a small dose to each of a pair of well horses—just enough to purge them a little previous to fattening them for sale. He of course measured the

quantity for the horses according to his experience with sick persons. One horse that swallowed his dose died inside of twelve hours, while the other one who got half-a-dose very nearly died. The doctor never could account for the anomaly, how a sick woman or child could take so much and live, while so little would kill a well horse.

If a robust and vigorous man suddenly becomes sick without any very great or prolonged exposure, he will have, probably, inflammatory or high fever. To the uninitiated his symptoms will be alarming because of their intensity; but this intensity, equally distributed as it is, is his hope and salvation. There is no danger whatever in such a case, provided the heat is kept down to near the natural standard by cooling external applications, and he is not drugged. The intense symptoms show abundant vital power and an active disease well distributed, and hence favorable indications. The low fevers, on the contrary, belong almost exclusively to the debilitated and sedentary classes. In these cases the symptoms indicate slight action, because there is little force; but they are very slow and tedious, serious, and even dangerous under the best of treatment, while if the patient is drugged they are frequently fatal.

Distinct small-pox is a violent disease, always accompanied with high fever; but if the patient is properly cared for it is not dangerous; while confluent small-pox has low fever, and under drug-treatment is usually fatal.

The facts of Water-Cure offer abundant illustration to prove that the more intense the disease the surer the cure. Thousands of persons who had been chronically sick for years, all the while taking drugs, have gone to Water-Cures, quit medicines, and gone under treatment. This treatment has been nothing more than food, exercise, rest, bathing, etc., or such as is intended to keep men well. After being there a few weeks, they have had acute attacks of disease called "crises." These "crises" would seem at times very alarming and fre-

quently very distressing. I have known them so severe in scores of cases as to threaten death; and yet they got such a reputation for curing, that Water-Cure physicians took up the bad habit of forcing "crises," under the belief that the patient could not get well without them. Thousands have gone through these "crises" at these places to good health, and who, many of them, believe that they were thus cured, and who know that they got well there by some means. How they got well the reader may judge. We are not one of those who believe that water, or Graham bread, or exercise, or rest, or any other appliance or condition cured them. It could not unless science is humbug and logic sophistry.

The reader is undoubtedly well acquainted with the fact that acute diseases are usually quite easily cured (we can testify that they get well of themselves in most cases if left alone), while chronic diseases are very seldom cured. If a man has severe and distressing indigestion, such as is indicated by colic, sour stomach, water-brash, etc., he gets well quite readily if not much medicated; but if he have that condition called nervous dyspepsia, with its symptoms so slight or negative as to be almost nameless, the case is a serious, and perhaps desperate one. I have seen hundreds such who could tell nothing about their symptoms, except that they were weak and indefinitely miserable.

Acute dysentery is easily cured; while chronic dysentery is a dangerous, if not fatal disease. In the former case the symptoms are violent, indicating great action; in the latter they are subdued and indicate debility chiefly.

The consumption whose symptoms are so slight as to leave patient and friends almost unaware of its existence is always fatal—is what is often called "galloping consumption;" while that whose symptoms are violent is often curable, certainly not immediately dangerous. In fact, all the dangerous diseases such as plague, spotted fever, yellow fever, ship fever, nervous fever, spinal meningitis, cholera, apoplexy, sun-stroke, etc., are of the low

or typhoid diathesis, indicating want of action; while the safe ones such as acute rheumatism, gout, inflammatory fever, pneumonia and the like, are characterized by violent symptoms.

All these things mean something. They mean that disease is the remedial force; and that the chance to get well is increased or diminished in the exact ratio that the force of the disease is increased or diminished. Indeed, our theory works just as every other true theory does. It

explains completely every problem connected with the subject. It works exactly right in every shape you put it. You may reverse it or re-arrange it, examine it in this light or in that light, the result is the same. It is the key that unlocks the puzzle; it explains the mysteries, and leads you safely through all the labyrinth of diseases. There is not, we affirm, a single fact connected with medical science that is not easily explained in the light of the principles we here expound.

PIANO PUMMELLING.

BY MRS. H. V. REED.

IT is a matter of regret that fashion should dictate that every girl, who is at all accomplished, must be a musician. She might as well dictate that every woman should be a sculptor, or every man an artist. Musicians, like poets, are "born not made," and while natural poets and musicians need much culture, the same years of discipline are worse than wasted upon those whom nature has designed for something else. It ought to be no more discredit to a woman to say of her that she will never become a good pianist, than to say of a man that he will never excel in sculpture or oratory. There are thousands of school girls in America, who are compelled to spend many weary hours a day at the piano, who have little or no taste for it, and to whom the hours of practice are almost hours of torture. It is true that the sway of fashion is so strong, that they will often submit to it in this case, as to tight corsets, without a murmur, and sometimes even claim that they like it; but the empty, mechanical sounds that issue from their pianos, belie their claims, and prove positively that no years of instruction or practice can ever make them really good performers.

There can be no correct estimate of the amount of valuable time wasted in trying to force the art upon those who can never excel in this department.

Nature usually gives to an intelligent child some particular talent, which, if

found and improved, will prove both rich and valuable; but it by no means follows that every intelligent brain should be a music box. Many a Florence Nightingale, or Rosa Bonheur, or otherwise successful lady writer, has been spoiled by persistent years of piano pummelling. We know that aching heads have often bent over music books, when a Latin or Greek grammar would have been hailed with delight, or the teachings of science eagerly pursued.

The tinkling of the piano has become so universal, that it would be refreshing to find one young lady who would say frankly that she could not play, and equally refreshing to find that she had other mental powers, and knew how to use them. But if all *must* be musicians, regardless of nature's protest, and at the sacrifice of other things, at least equally valuable, why is it necessary that *all* must play on the piano-forte? Many a tortured ear drum echoes. *Why?* It is the one instrument which is most annoying beneath the fingers of a novice or third-rate performer, and under the present state of things, they are numbered by legion.

Sportsmen claim that the sound of the piano has driven all the deer out of the Adirondacks; and if these beautiful creatures have any musical taste at all, we cannot wonder that they sought the "voices of the wilderness" in preference to the clatter of civilization.

The guitar gives a beautiful accompaniment to a sweet voice, but how seldom we hear it now! A pretty woman is much more graceful seated at the harp than the piano—no better opportunity can be had for the display of a beautiful hand and arm—and the music, even under the hand of a novice, would be at least a change.

The noise from little tired hands rings in our ears from every block, and we picture to ourselves the number of growing children in every city, imprisoned and disciplined for weary hours and years, to learn that which, in nine cases out of every ten, will never be of any benefit to them.

Why will parents persist that their daughters shall sacrifice years of time and labor; shall sacrifice health, and consequently beauty, in acquiring an art which not one in fifty of them will carry beyond the first years of married life?

One year of little or no practice will make such havoc in an ordinary musical education that the ground will never be regained, and consequently is ever after being lost. If your daughter has real

musical talent, give her, by all means, an opportunity to cultivate it, that it may be a source of happiness both to herself and her friends; but, if she is a natural artist, linguist or scientist, do not sacrifice her future by compelling her to waste her years in becoming a second-rate pianist. She may have no particular talent for anything, and still be a noble girl and mature into a true woman. Let nature have some chance to work out her own problems. If a child has but little musical taste, let her leisure hours be spent in active outdoor exercise, instead of at the piano. Give her fresh air, instead of music lessons, and she will not be an invalid at twenty, grey or bald at thirty, and dead before forty.

Let her practice horseback riding, instead of ascending scales, and horticulture instead of French mottzez. Give her a flower garden, instead of a distorted spine; cultivate her moral faculties instead of her fingers; and rest assured she will make a woman who will be loved, honored, and happy, for years after many of her piano-pounding companions have gone back to dust.

THE HEALTH OF OUR CHILDREN AT SCHOOL.

BY A TEACHER.

THE most frequent cause of ill-health among occasional pupils, who are better off in vacation than in term time, I have found to be over-work;—too large a strain upon the nervous system, producing exhaustion, headache, weak eyes, and many other ailments.

Actually, over-work; either the parent requiring of his child, or the child requiring of himself, double duty; school work, and a business besides that is enough for a young person, not in school, to attend to. The love of money which, to-day, as in the time of St. Paul, is the root of so much evil, prompts even Christian parents, now and then, to save a little of their children's time at the expense of health and character. It is so convenient to have a bright boy in the bank, the printing office, the dry goods store,

a few hours of every day; it saves the wages of a clerk, or gives the father leisure for other affairs; and then the boy is getting an idea of "business," which, to those who consider business the chief end of man, must seem a very desirable thing.

I am not now quarrelling with this state of affairs, I wish only to state that, when a boy is confined six hours in a "close school-room,"—which is three hours too much—eight hours more in a close counting-room, and breaks down under it; or when he gets up at four o'clock of a Winter's morning, in order to have his work done by nine o'clock, and grows sleepy over his algebra, in the evening, that the school course ought not to be blamed, or the teacher, who insists on good recitations in three subjects every

day, considered unreasonable, or charged with any intention of breaking the sixth commandment.

I suppose parents have a right, so far at least as other people are concerned, to set their children to earn their own living, to learn business, to save the wages of a clerk, while they are still in school; but I wish, when one is disposed hastily to blame the school system for the heavy young eyes and tired young faces he sees upon the streets, he would first enquire a little into the ways of the home system.

With the girls the matter is still worse, since they may always add to their school work that graceful and feminine (?) occupation which came in vogue at the time of the fall, and which, we fear, will never go out of vogue until the time of the millennium. Let no one hold up his hands in holy horror; I mean, precisely—sewing.

I am somewhat appalled at the magnitude of this evil. Many of the girls in the high schools do an amount of sewing that, added to their school work, is enough to ruin the eyesight, or break down the health of all those who have not an iron constitution to begin with.

Here is an illustration from real life. A bright girl comes to her teacher to be excused from writing a composition; she has trouble with her head, and a mist gathers before her eyes, when she attempts to write. In answer to questions, she assures her teacher that she "is very careful;" hardly ever studying by lamp-light, and wearing a shade over her eyes when she sews.

"Oh, you *sew*, then?"

"Why, yes," the girl answered with a somewhat blank look. "I do all my own sewing," and, after a moment, "I made this dress I have on."

The dress she has on is a black alpaca, with seven ruffles on the skirt, and quantities of bias trimming. It is the teacher's turn to look blank now. I think I can fancy the dazed manner in which she goes over the items: "All your own sewing; no composition, and seven ruffles on the skirt of your dress!"

"Well, I can't afford to have my sewing

done," the girl goes on with the calm air of one who is sure of her case. "I am sorry for the fashion, but what can I do? They all wear them so."

"*They all wear them so,*" the teacher repeats. "'They all,' which means, in every case, *some* of them, get their geometry lessons and do not ask to be excused from compositions. Have you no higher ambition than to dress as well as the others? If you really are willing to give your eyes, or your education for these furbelows, you might as well retire into the world at once, and spend your whole life calculating what 'they all' wear, and sewing ruffles on your gowns."

This is not an imaginary, nor is it an isolated, case. Such things exasperate the earnest teacher, and it is only by remembering that we are all miserable sinners, and that we all, to some extent, set value upon "that which is not bread," that she can get patience to reason calmly about the matter, and try to teach these deluded girls to choose the "best gifts," when there is not room for all. The thing is repeated in well-to-do, even in rich, families. The girls must stay at home when they have a dressmaker there, and be in a state of distraction for several weeks, while those wonderful rigs are preparing, in which they are to recite their Latin and their mathematics. Often they are required to sew every day merely for the sake of the "practice," sewing being considered, for a woman, what business is for a man, viz.: the chief end of life.

I remember a pale, nervous young lady who belonged to a wealthy and well-ordered family. She could hardly stand at the black-board long enough to write out a formula, the white chalk marks on the black ground were so troublesome to her eyes. Her friends watched her anxiously; they feared lest she might be in school at the risk of her health. The teacher was anxious, too, and favored her in every possible way. With what consternation he learned that his frail pupil usually made her own plain garments, beside doing, from week to week, the family mending.

"Girls must learn how to sew," the mother replied, with an emphasis that was decisive, to the teacher's remonstrance; and the elderly gentlemen friends of the family lavished encomiums upon the girl who could patch and darn like those of the good old-fashioned time.

I wonder that they found this case so remarkable. I think I could point them to scores of young women who are injuring their health, and making their education superficial, for the sake of getting their "auld claities to look maist as weel as new," and their new ones to look like—other people's. What remarkable stress some of us put upon trifles! I have known girls in certain methodical families, to be out of school, or late at school, and generally flurried, regularly, at the season for preserving and "canning" fruit. Such things make the hurry and over-work in the time of reviews and examinations.

Of so much more importance are we inclined to consider the "raiment" than the body; of so much larger account the regulation sweet-meats for the palate, than the regular and proper food for the growing mind.

There is another reason why an occasional girl fails in health, during term time. It is a fact that many of the precocious demoiselles in our high schools are "in society"—especially is this the case in country villages—receiving and making calls, entertaining company, accepting attentions from young gentlemen, like their mothers or grown-up sisters. Fashion and the "proprieties" are looking toward reform in this matter. It is not considered quite in good taste for a young miss to have "evenings" of her own at home, to frequent general society, to become a "belle" or a "flirt" while she is yet in school.

Still, I think the academy or high school teacher will find a few such instances among his thirty-five or forty pupils; and there is a form of dissipation, for the children, approved by the polite world, which is doing more to undermine the constitution and ruin the health of our young people than the

"hothouse pressure" of any school system is capable of accomplishing in its six hours of daylight.

It is that the fresh and natural sports of childhood are turned into artificial and unwholesome channels. Young boys and girls made to ape their elders and copy their amusements. There are children's dancing-parties, — "hops," I believe, is the technical name—masquerade balls and costume-parties; gatherings for which they dress elaborately, and to which they go only at the time when all children of Christian parents should be going to bed, and at which they gormandize unwholesome food, and come home so wild with excitement and strong coffee that they cannot sleep for the few pitiful sleeping-hours that remain. How many times I have seen them—dozens of fine boys and girls wearily bending over their books a day after an evening of this kind. Some of the more ambitious have studied after midnight to prepare their lessons; but it makes little difference; the recitations for that day are a failure. They were little better than a failure during the days preceding; they will be little better for several days to come. The teacher's plans are often defeated by such nights of dissipation. Is nothing else a failure? Has nothing been done to defeat the plans of nature? The plans of the Creator, with regard to these children?

But, it is said, children must have some recreation; they cannot study and work all the time. Very true. They should have the pleasantest of plays, the most restful rests, the most recreating recreation. Does any one fancy that these exciting evenings, which weary mature minds and bodies, rest the children or make them happier?

Why should we try to give them everything at once? Crowd maturity, youth and childhood into the first few years of life, and then wonder that they break down in health, grow old, or sicken and die, so soon, and make such a boggle of living, after all? We sit down to dine at a well-spread board. Those who serve us get impatient before we have finished

the first course, and the fish, the roasts, the vegetables are crowded on; we grow greedy, and pastry, and jellies, and fruit are all tumbled with them in one grand heterogeneous mass, into the first plate of soup. Some one remonstrates and mildly suggests that it might be better to have things in order; but we respond: "One must eat something beside soup," or, "Do you think we can make a dinner of roast-beef alone? The slow, old time when it was thought well to do things decently and in order is gone by now."

So we mix the children's blind-man's buff and Christmas trees and school tasks, with dress, gloves, ice-cream, and gaslight, and sickly sentiment, even with love and matrimonial engagements, and we wonder that they have mental dyspepsia; and we say dryly of those who remonstrate, "They belong to the past century."—So says a Teacher in the *R. I. Schoolmaster*, and we heartily endorse every word of it. We pity the boys of to-day who are to have these superficial, sickly girls for wives and mothers a few years hence! But what is the remedy? We answer, Common-Sense and THE SCIENCE OF HEALTH.

PAIN OR NO PAIN.

WHILE a lively discussion is now going on among the learned Esculapians, as to who discovered anaesthesia—whether it was the late DR. HORACE WELLS, of Hartford, Connecticut, or certain Boston claimants—Dr. Trall sends the following to the *Daily Star*, of Philadelphia:

INSENSIBILITY TO PAIN.—How it is Dependent upon Respiration.—In an article on Insensibility to Pain during the mesmeric trance, the *Evening Star* concluded with the statement, that "It remains, however, a fact of which modern science can give no intelligible account."

It is true that scientific men have not yet explained the phenomenon; but it is, I think, susceptible of explanation. We have only to consider the physiological conditions on which sensibility depends, in order to understand the ration-

ale of insensibility. Feeling, whether pleasurable or painful, depends on a certain condition or degree of the circulation of the blood in the organ or part, and a wakeful or active state of that part of the brain which phrenologists denominate "vitaliveness."

Pain, or pleasure, is simply the recognition, by the mind-organ, of the condition of the part affected, or of the nature of the object in contact with it or in immediate relation to it.

Now, it happens that respiration is so intimately connected with circulation that feeling, or sensibility, is measured exactly, other circumstances being equal, by the amount of breathing. If from any cause respiration is suspended, sensibility is lost. If respiration is diminished more or less, sensibility is diminished correspondingly. This fact is illustrated in the different stages of anaesthesia, whether induced by ether, chloroform, alcohol or other agents. Compression of the brain, as in apoplexy, so impedes respiration as to occasion total insensibility. A person who is "dead drunk" is also insensible from the same cause.

Pressure on the pulmonary branch of the pneumo-gastric nerve will so lessen respiration that teeth may be extracted without pain. And pressure on the carotid arteries below the ears will produce partial or complete insensibility, according to the degree of pressure. By either of these methods a cancerous tumor may be burned out with a heated iron, and the patient experience no pain whatever.

Persons who are successfully mesmerized are in a mentally passive state, approximating sleep, and this implies comparatively feeble respiration. Those who readily go into the condition of trance, catalepsy, clairvoyance, somnambulism, etc., do not respire nearly so much during such times as in the normal state. Animals have a smaller brain and organ of vitaliveness than human beings, although they have comparatively larger organic nervous systems and muscular structures. They may manifest violent struggles yet feel

very little pain. In epileptic convulsions, in asphyxia, hanging or drowning, (short of death,) the respiration is so nearly suspended that no pain is felt after the first momentary shock.

No matter how respiration is diminished or suspended, sensibility invariably corresponds with it in degree. Narcotics, pressure, mesmeric manipulations, or spiritual obsessions, (if these exist,) occasion insensibility in the same manner, with the single exception of mechanical injuries, or morbid conditions of that part of the brain structure recognized as vivitiveness.

During sleep sensibility has no existence. This results only in part from diminished respiration. The co-operating cause is the diversion of blood from the brain to the nutritive organs. Because of this, the function of recognition is suspended. No one can feel pain in sleep, no matter what injury is done to, or operation performed on, the structures, for the reason that, although the causes of pain exist, the organ of perception does not take notice of them.

Two very important practical considera-

tions are deducible from these premises:

1. The danger of anesthetic agents consists mainly in administering them too rapidly. Ether, chloroform, and all similar breath-suspending agents, should always be given slowly, and abundantly admixed with atmospheric air, so as to avoid any dangerous shock. They should, moreover, never be given except when the stomach is empty. My own practice has always been to have the patient fast on the day of operating, and take only one very light meal the day preceding, and although I have many times kept patients insensible for several hours, no serious damage ever occurred.

2. The societies for the prevention of cruelty to animals are praiseworthy institutions, but as it happens that human beings, who are a thousand times more sensitive, suffer more of cruelty every day in the year than all of the animals in all creation have suffered since the flood, if not since the beginning of time, it seems to me that societies for the prevention of cruelty to men, women and children are the greater want of the age.

THE WOMAN DOCTOR.

The Wayside, an excellent weekly religious newspaper, edited by a physician, published in Wilmington, Delaware, from whom we obtained this striking picture, says:—

"Women are being admitted, in our day, to many employments hitherto shut against them. Even the medical profession is opening its doors, and in Europe and America several colleges afford facilities for the training of women as practitioners of the 'healing art.' Many good men favor it, and others doubt its propriety. Something may be said on both sides. The necessities of the times seem, however, to be teaching us that women as well as men should be trained to an ability for self-support, so that if, in the turn of fortune, they are cast upon their own resources, they shall not be at the mercy of the avaricious who compel

them to work for insufficient pay, or of the vicious who would tempt them with the wages of iniquity.

"'Women make the best nurses,' say all men. May we not add, that for many parts of a physician's duty, at least, woman is particularly fitted by her delicacy of feeling, her sympathy, her gentleness, her kindness of heart, and her facility in help and attention.

"The practitioner in our engraving shows in her face a firmness and energy of character which gives assurance of her ability, if trained, to perform more difficult and dangerous operations."

[Whatever woman wants to do, can do, and is right and proper to be done, she may do. There is no mastership nor servitude between the sexes, save that of love. Both men and women are equally accountable to God for the right use of

all their talents, faculties, and powers. Each is to do the best he or she can, to promote the best interests of the Race. Our rights, privileges, and duties are the

to keep house, teach school, write books, learn a trade, be a mechanic; an art, and be an artist; a merchant, and sell goods; a physician, and practice the healing art;



same. Our spheres of action, our pursuits, are varied according to talent, taste, and capacity. If a woman wishes

a clergyman, and preach; a navigator, astronomer, horticulturist, farmer, polymatist, why not? Who has authority

to prevent? Men choose their own callings, and we find great, stalwart six-footers behind counters selling needles, pins, tape, bird-seed, and tobacco-pipes! We find "man milliners" selling ribbons, fitting basques to ladies' waists, and fitting slippers to ladies' feet! We find them cooking, washing, sewing, and doing sundry other sorts of work which woman can do just as well. Is it to be objected that woman may run a locomotive if she be capable and wishes to do so? We are advocates for the equal rights of all who are, by organization and culture, equally capable of usefulness,

enjoyment, and happiness. True Christianity, as well as true Democracy, proclaims the emancipation of all men and all women. Let women drop their frivolous following of foolish fashion, and strike for freedom—for a higher education; aye! and when circumstances compel, for self-support. Then open the doors to her, and bid her come in and take her place by the side of her brother in all the studies, and in all the pursuits she may desire to enter upon, in which to earn an honest living, and acquire the luxuries which come of learning and of labor.]

THE TWO JACKS.

A Hygienic Story.

To a fine old cotton plantation, on Broad River, came in 1869, two young white men, in the character of renters. The owner, a physician celebrated for his skill in that part of the country, found a sufficient income in his practice to make him careless in regard to that derived from his farm, and since his negroes had been freed he had left even the supervision of the place to an agent, under whose management it seemed in a fair way to deteriorate into a wilderness. Scarce a fence was left that would turn a cow; the fields were grown up in jimson-weed (*stramonium*) and cockle-burr; the wells had filled up and gone dry; several corn crops had been eaten up by the incursive stock of the neighborhood; the dwellings on the place had become leaky and dilapidated; the cribs infested with enormous rats; there were no suitable conveniences for feeding stock, the corn and fodder being thrown into a trough hollowed from a cypress log, set up in the middle of the lot, where mules, horses and cows promiscuously fought and tried to eat. It seemed a received axiom among the renters that it didn't pay for them to try to keep up the place; therefore, the orchards might bend with overloaded boughs before their eyes, and no impulse possess them to shake off the superfluous fruit and save the trees from breaking

down; gates fell from their posts and lay rotting, and drains clogged up; but nobody put a hand to restoring the one or cleansing the other. Yet it was a desirable plantation, as rich, free soil, yielding abundantly corn, cotton, wheat, rye, oats, potatoes, buckwheat, clover and rice; and the finest timber for rails, boards or building was to be had for the cutting.

The heroes of this story were city boys, who, having found it hard to secure clerkships, had concluded to try the country awhile. Each rejoiced in the euphonious name of Jack; but a greater contrast in person, mode of life, ideas and history than they afforded, would have been hard to find. Jack number one was a slender, active, wiry fellow, with a constant flow of animal spirits. Always cheerful, you might hear him whistling the cloudiest morning when arranging matters in regard to his rent. He selected a little hut in one of the fields in preference to another offered him in a grove, with an eye to escaping somewhat from mosquitoes, which, even in swampy lands, are not so annoying in open clearings as under the trees. His first business was to rake and sweep away the debris from under and about his cabin, to construct a small drain, and then whitewash his miniature premises. He

took advantage of wet weather in the Spring to cut and haul plenty of wood for his stove and fireplace. He was forced to rely for his supply of water on a small, muddy spring; this he carefully cleansed, lined the bottom with rocks and clean sand, and skimmed off the green slime which floated on the surface. He then supplied himself with two cheap water buckets, one of which he punctured with augur holes at the bottom, lined with flannel, which he coated with powdered charcoal; through this he filtered all his drinking water into the other bucket, set just beneath it.

Jack number *one* rose half-an-hour before day in the morning and made a fire in his chimney-place, returned to bed, and *dozed* and lazied delightfully till dawn, then started the fire in his stove, and prepared his simple breakfast by sunrise. It was nothing but a corn griddle-cake and a bit of broiled beef, yet it had cost the young man some trouble to provide these materials; his city corn proved to be musty and dark, and he had succeeded in exchanging a few sacks of it for fresh *home-raised corn on the cob* only by persevering endeavor. A clever German rentor on the place, the last person he applied to, exchanged willingly, and insisted that Jack should select only large, sound ears; and, carrying his corn to mill himself, he had got the same corn back, ground in the miller's best style. The beef he had got from the city, as pork and bacon were almost the only meat used by the country people. He resolutely set his face against drinking either coffee or whiskey, though everybody told him he couldn't live without a stimulant in that region—he'd die with the chills. Nevertheless, soon after sunrise Jack might be seen cheerfully winding his way to the field, undismayed by the prophecy of the congestion lying in wait. He was so hungry by dinner-time that he found even cold corn-bread, dried beef and raw mustard delicious, and thoroughly enjoyed his Graham cracker and butter-milk supper.

Jack number *two* was a fat specimen of the Lymphatic temperament, fond of

good eating above all things, and constitutionally opposed to exertion. Nevertheless, he was aspiring, and proposed to make a round sum of money farming the first year. Quite a rivalry sprung up between him and Jack number *one*, as to which should do the neatest job of fencing, cut the most effective drains, and make the best crop. Notwithstanding the native indolence of Jack number *two*, when he got to work he kept steadily at it; and, like the tortoise, progressed, though slowly. This young man, very early in the season, bought a jug of whiskey, into which he put wild cherry tree, root and dogwood bark, and from this he faithfully took a draught, more or less deep, three times a day. Of coffee he drank several cups at each meal, and was much addicted to batter cakes of extreme toughness and as greasy as the hog's lard they were fried in. Pickles he doted on, also crapped collards and bacon.

About June, Jack number *two* began to look as if he had the jaundice; his nose grew red and full of little "worm heads," and his face was full of pimples. By the end of the month he was down with bilious fever, and, very much frightened, sent for a doctor, who dosed him with blue mass and quinine. He eventually "got up," but continued to have "spells" of chills about every nine days till frost, quite unfitting him for farm-work, and causing him to lose half his crop for lack of gathering.

Meantime Jack number *one*, the "cold water man" as they called him, *didn't have a single chill*, and *was not sick* a single day. He gathered his crop unaided, and was livelier than ever when the fall brought trees-full of squirrels and clouds of wild ducks. He learned to be quite an expert marksman, and found squirrel stew savory and wholesome. Then occasionally he saw deer tracks in his pea field, and one morning succeeded in wounding a doe, which he captured and presented to a young girl living on the place, whom he had come to regard with admiring eyes. She was a little German maid, whose blithe voice sounded sweetly

as she warbled in time to the strokes of her churn dash. "A sweet, smart, thrifty little creature," said Jack number one, as he saw her making the soapsuds fly, while she washed clothes at the spring, swept the yard, and trained vines over the door.

The cold water man got to dropping in of an evening to talk with golden-haired Gertrude, and was astonished to find this "maid of all work" familiar with the works of Goethe! Now Jack was exceedingly fond of poetry, and he found it very pleasant to repeat his favorite verses to a sweet, blue-eyed appreciative listener by the light of a fair Autumn moon! The course of true love ran so smooth, that before the Christmas fires were lighted, Jack number one had made an offer of his true heart and hard-working hand, and been "taken up" as the Hoosiers say.

Only the day after Gertrude was under the painful necessity of refusing a similar offer from Jack number two. "He got no sense," said Gerty's German mother, "He no sport himself, he loses him fodder, hogs eat up half him corn, he no gather near all him cotton, him sick most de time—What him do wid a wife?"

VIRGINIA DU PAUL COVINGTON.

HOW TO MAKE A GOOD MEDICAL JOURNAL.

ALL interested in editing and writing for a medical journal must understand the real wants of our profession. They must have a clear and distinct knowledge of what will aid those in daily practice, on whom the trying responsibilities of caring for those in great peril to health and life. The best possible way known to human acquirements, and beyond what can be found in the books—the conceded and settled authorities are looked for in the fresh journal of each returning month.

These must keep in advance of the latest and best published works, which every good physician is supposed to have already at his command. Writers must rise above glittering generalities, sophomoric declamations, and deal out plain,

practical truths, which commend themselves to the sound judgment of every sensible reader. No "rushing into print," no magnifying of the names or fame of any man, will do when the real necessities require a new and better knowledge, which is eagerly sought for by all who take and pay for journals. Sad is the disappointment when a monthly is searched only to not find any or but little aid in the practical duties which overtax the practitioner's body and brain.

Ignore it as we will, every useful and good pursuit should pay. "The workman is worthy of his hire." Therefore, it is the plain duty of them who write to have something new and valuable to say, or never think of imposing their smatterings upon the readers. All the flourishing and embellishments of good rhetoric fail to afford satisfaction, and even these leave an aching void, when needed food for the medical mind of a plain and substantial kind is hungered for and eagerly sought after. All turn with disgust from mere superficial instructions, however brilliant and assuming. All are seeking real culture from every source in order to make themselves first-rate practitioners; to distinguish themselves and make their profession pay. This is right in the very fitness of things, for any business which cannot be made to yield a good and respectable remuneration, when wisely and energetically pursued, is unworthy of life's devotion and sacrifice to it.

All brag, boast and cant about being called, preferred to others, all railings against our competitors of our own or other sects in medicine are outside of all sympathy in the strictly scientific and professional mind and bearing, and must not mar, disfigure and disgrace the fair and costly pages of journalistic literature. What all want is to be shown the better and more successful way to practice, no matter from what source such knowledge comes. All sensible persons avail themselves of every possible channel for instruction, and much that is valuable comes from very humble and unlooked for sources. All shrewd observers

are alive to all around them, everywhere, and glean and absorb invaluable practical thoughts as much or more from passing events than from the stores of authorities, much of which is mere "old plunder," hypotheses, exploded ideas, or worse.

We want articles from those who are known to *excel* in some one branch of their profession, whatever that may be.

"One science alone can one genius fit,
So broad is human knowledge, so narrow human wit."

For any man to spread his thoughts over a general practice makes his knowledge too superficial to enable him to write on any one special subject to the profit and instruction of others about it. If we seek out a branch of practice for which we have aptness and adaptation, an *average* talent can excel in it, and impart good to others less advanced. Toward these all eyes are turned for instruction in these avenues of practical thought. All great minds have distinguished their usefulness in a single channel of investigation; *not in all*, certainly. None are equal to such a task. Let us write on prevailing maladies, on grave and perplexing diseases, on destructive epidemics, on the best management of diseases that are slaying great numbers around us; show a better way to treat consumption, asthma, scrofula, syphilis, cancer; how to become adepts in special surgical diseases and operations—the stern responsibility that baffles and often tries us to the very verge of despair. Any new light made to shine in our pathway on these very common maladies will be gratefully appreciated by all. Three things must be thought of to write a good article: 1. Is it new and useful? 2. It must have a beginning, middle and end; simple, clear and to the point. 3. Without flourish or redundancy of words, subserving a real practical want and good. It is unnecessary to add, our profession is prolific in these subjects, and in writers, modest, cultured and capable. Such are invited to the front, and others are implored to keep in abeyance until they can assume such an attitude only,

for the credit and good of our profession.

—*St. Louis Medical Journal.*

[Now, if our Western cotemporary will substitute the word *health* for *medical*, THE SCIENCE OF HEALTH fills the bill as to "How to Make a Good Medical—Health—Journal." Our writers are both wise and brilliant; our practitioners—Hygienic—are ever-so-far in "advance" of those of all other schools, and subscribers are glad to "pay"—not for poisons, but—to learn how to keep well, and escape the drug doctors. We hope in good time to bring the world up to our "advanced" view, when there shall be no more pills, plasters, bitters, and other die stuffs administered to poor, jaded, sick and worn-out human stomachs. We like what our cotemporary says about "what all want is to be shown the better way," etc. He will find the "better way" in THE SCIENCE OF HEALTH.]

DISEASED LIVER AND SUICIDE.

[DR. TRALL contributes the following sensible article to the *Philadelphia Star*, from which we transfer it to the SCIENCE OF HEALTH, and commend it to desponding invalids.]

THOMAS OLcott, of Albany, N. Y., "a wealthy and estimable citizen," happy in his domestic relations, and fortunate in his social surroundings, committed suicide, a few days ago, at a water-cure establishment in New York City. His friends say that he had a diseased liver, which affected his brain. How and why it is that disease of the liver predisposes to suicide may seem very strange to most persons, yet the rationale is very simple. To understand the problem we have only to consider the office of the liver in the vital economy, and trace the consequences of an interruption of that office.

Every adult person knows, or ought to know, that it is the office of the liver to cleanse the blood of certain waste matters and impurities which are excreted in the form of bile. This bile is a thick, viscid, bitter fluid, which, in the condition of health, passes off from the liver and

into the alimentary canal as fast as it is formed. But when the liver is torpid, inflamed, or in any manner diseased, these waste matters and impurities are retained in the blood. The blood becomes vitiated and so loaded with effete material that it circulates with difficulty through the fine capillary vessels. The result is, obstruction and congestion, inducing a sense of depression, low spirits, melancholy, and aches and distresses innumerable. This is the condition known as "biliousness," sometimes manifested in the form of jaundice, rashes, humors, etc.

Some persons who have this condition as a habit are occasionally relieved, for the time, by what is termed a "bilious attack," sick headache, cholera morbus, bilious diarrhoea, or an erysipelatous eruption, by which the accumulated bile is expelled. But if these "remedial efforts" do not occur, the prolonged accumulation of biliary elements causes the liver to swell and press on the heart, lungs and stomach, disturbing circulation, respiration and digestion; while the viscid blood overloads the brain so as to render the sense of oppression constant and sometimes intolerable. In this condition the sufferer often thinks of self-destruction, frequently alludes to making away with himself in conversation with his physician or intimate friends, and sometimes performs the deed. Every Health Institution is familiar with such cases, and extreme cases of dyspepsia are more or less complicated with disease of the liver, and these cases frequently manifest melancholy, and sometimes mania or insanity.

The preventive or curative treatment is as simple as the rationale. It consists in keeping the skin open by occasional bathing, and the bowels free by proper food. Take no cathartic drugs, eschew all "anti-bilious" pills, and avoid all "purifying" nostrums; for, although these may relieve temporarily, they never fail to aggravate the malady permanently. I have never known an invalid suicidally inclined who had not suffered of prolonged constipation of the

bowels; hence the most important part of the medication is so to regulate the food as to obviate this difficulty.

And this may easily be done. It only requires that the food be plain and unadulterated. Good fruits, and bread of unbolted meal, are of first importance. No fine flour in any shape, nor baker's bread in any form, should be used. With plain food, plenty of good fruit in its season, wheat-meal bread, as the leading articles of diet, and a tepid ablution twice a week, none of the many persons afflicted with diseased livers would ever resort to the desperate expedient of suicide; and if those who are now happily exempt from this very prevalent affection will adopt these habits, they will never have any diseased livers to complain of. The present season is peculiarly favorable to the dietetic regimen herein recommended.

TOBACCO VERSUS INTELLECT.—At the nearest recollection the internal revenue report of last year showed that the United States consumed about ten million cigars during that time. Many old smokers prefer the pipe to the cigar, and probably as much tobacco is consumed in that way as in cigars. However out of the way numerically the previous statement may be, it is true that there are in this country 12,294 manufacturers of cigars, and that they employ 71,491 men. Whenever tobacco can be raised, the farmer finds it one of the most ready-paying crops, and consequently is very apt to go into it. Its use increases from year to year in a greater ratio than the population. People differ so widely as to its effects, that it is only just, whenever a candid statement is made of any test, to give it publicity. Recently, at the Polytechnic School in Paris, one of the professors inquired into the habits of the one hundred and sixty students there, and then made a comparison between their devotions to study and to smoke. He found that in each grade of the school the students who did not smoke outranked those who did smoke, and that the scholarship of the smokers steadily deteriorated as the smoking continued. On account of several trustworthy reports of such a nature, the Minister of Public Instruction in France issued a circular to the directors of colleges and schools, forbidding tobacco to students, as injurious to physical and intellectual development.

[England derives some \$60,000,000 a year, in revenue, from tobacco. It is also a source of great pecuniary gain to the French exchequer, but at the cost of the nation's vitality.]

CALICO.

WHAT has become of all the calico? We used to see it more frequently "before the war," and we thought it not only becoming to the fair sex, but, when worn with grace by intelligent women, we thought both *it* and *them* really beautiful. At a cost of from fifteen to thirty cents a yard, a pretty dress may be had, quite good enough to work in, to wear while traveling and visiting, or—think the remark not profane—even to worship God in.

Perhaps we do not fully realize the objects of female attire. If the object be to clothe the lady for health and comfort, then we should study the subject with a view to health and comfort. But if it be for the display of great quantities of "dry goods,"—to advertise the "latest fashions,"—that is quite another thing, and present styles are admirably adapted to the purpose. Or, if the object be to display the human form, to crimp, cramp, and crucify it; to give it a wasp-like shape, with a dromedary appurtenance, and, at the same time, to give the poor victim a donkey load to carry, then all right—you now have it.

When the sewing-machine was first introduced, it was claimed to be a blessing which would emancipate woman from endless slavery and give her time for a higher education, numerous accomplishments in the arts, and to elevate her to greater usefulness, better companionship and greater happiness. But what are the facts of the case? Is she emancipated? Have any of the shackles or bands which bound her been taken off? Is she more free from fashionable folly? Does she give more time to the study of science, useful literature, philosophy, art, or the economical industries? What are the facts? Compared with the condition of things before the advent of sewing-machines, how is it now? A moderately fashionable young lady, almost wholly dependent on a hardworking young merchant for support, informed us casually that there was, on the Summer dress she then wore, *one hundred*

yards of hemming, all done by hand! Of course, the plainer parts of the sewing was done on the machine; but why all this work on a single garment? Let us look into the mysteries of modern dress-making, and see what a fashionably-dressed young lady has on, when ready to go out for a ride or a walk.

1st. She has on—we will not name *all* the under-garments, we could not if we would; and even these usually have any quantity of useless embroidery, which costs valuable time and labor—then there is the corset with bones, eyelets, strings for lacing, and this, too, must be embroidered and otherways ornamented by hand needlework. Then come the skirts, or petticoats, and they must have "flutings," frills, embroidery, and be "showy," if not "loud." Then comes the dress with its endless trimmings, frills, flounces, tucks, puffs, bows, sashes, fringes, imitation leaves and shell-work, pockets, big buttons,—for show—and so forth! Then come the neck trimmings, consisting of ties, beads, ruffles or collars, chains with pendants, necklaces, tassels and other charms; not to mention the artificial pads worn in front and rear,—especially by those whom nature has not favored. Then comes the wonderful head-gear, and this, as seen now-a-days, is truly "horrible!" Can we describe it? No, we give it up, and turn away with loathing. But, duty compels, and as we would muster courage to perform a surgical operation, so we must look into and expose this untidy-looking mop of dead hair, jute, rope or wampum. "What is it?" "That depends." In one case it will be a wad of lively hair from a dead pauper, perhaps. Look at it through a microscope or magnifying-glass, and then—run! Or, it may be a lot of cheap rubbish, half hair and half jute or hemp, or dried sea-weed, hay, straw or grass. Anything to make up a pile, and make the *foolish* little head look big, smell bad, and give the wearer a headache, and the beholder a heart-ache—with pity and contempt. Oh, it is

sickening! It is disgusting! We are not surprised that there are so many women who cannot sleep well, and, consequently, become insane. It would be so with men, were they driven to such folly by foolish fashion. Ladies, ladies, don't be fools nor slaves, but be sensible women!

We must also call attention to those metallic bracelets,—something like handcuffs worn by criminals—and those leather straps or belts drawn tightly around their bodies, and fastened with great metallic buckles, and hung with coarse, awkward chains. What are they for? Can it be to keep them from falling to pieces? Would not the old-fashioned hooks and eyes, or pretty little buttons answer the same purpose, and be less injurious?

Then the ear-rings, finger-rings,—why not rings in their noses? Savages wear them there.

Then the shoes—and here we record, with real satisfaction, the fact, that even fashion has of late adopted a more comfortable shoe than that worn for the past few years. The heel is not so high, and the shoe is wider across the bottom, so that we may reasonably hope there will be less stumbling, less falling down stairs, and less broken knees, necks and backs. Many deaths have been caused by high-heeled shoes! Any number of crooked shins will be found among young women and growing girls, because foolish mammas permitted them to wear the miserable things. Woman, crippled in her feet, hobbled, rather than walked; had corns and bunions, and became an invalid or a cripple for life. In view of all these impediments, is it surprising that woman is to-day a chronic invalid? If she have no broken bones, she is distorted and full of infirmities. She is nervous, fretful, peevish, melancholy, dyspeptic, consumptive, or, she is of unsound mind,—we will not say insane, though she may become so, unless she frees herself from foolish fashions, which are so destructive to health and life. It was not so in the times of our forefathers. Women wore calico then. Women had sound teeth, good digestion,

sweet breath, cheerful faces, with hopeful, happy hearts. They became mothers of healthy children, and nursed them, too! Sucking-bottles were not so much in demand when women lived simpler, truer, and nearer to Nature and to God.

When women wore calico there were fewer commercial failures, and less competition among business men than now, when women are more extravagant.

When women wore calico there was less lewdness, less domestic infelicity, less divorces, less scandal, and more quiet, contentment and peace.

The poor ape the rich, and some of them sell their virtue to procure the wherewith to shine in fashionable feathers. "Yes, but that is not our fault," say the self-righteous, "and may we not do what we will with our own?" Aye, so say those who are altogether worldly. But, woman, woman!—mother of the race! See you to this: Try to realize your true mission on earth. Let it not be said, that by your example you led a weak sister into temptation. Let it not be said, that your extravagance led your husband into bankruptcy. Let it not be said, that you lost your health and became a helpless invalid by following foolish fashions. Let it not be said you are too proud to wear calico.

EMERGENCIES.

How few there are who know what to do, or how to do it, in emergencies! If the house takes fire, some weak, silly creature faints away! another pitches the mirror out of the window, and cries murder! or commits some other equally foolish act. But a sane, sensible person, with all his wits about him, looks, thinks, and acts promptly and wisely. He seems to know just what to do, and does it at the moment! Take a sea captain in a storm, a fire, a collision or on the rocks. If he be "the right man in the right place," he will be sober and at his post, directing subordinates what to do to save life and property. If, on the other hand, he be a sham, he may be drunk, and the

lives of all on board in constant peril. His ship will, sooner or later, strike the rocks, and down she goes. Or, should she be near shore, a few of the strongest may live. [When the *Atlantic* struck the rocks on the coast of Nova Scotia last Spring, with several hundred men, women and children on board, not a woman or a child was saved.] In a recent railway accident at Lemont, near Chicago, where a number were killed outright and many more seriously injured, it is reported that noble and heroic efforts were made by certain of the passengers to care for the broken, bleeding, scalded and dying. An eye-witness says, in the *Chicago Tribune*:—

Amid all the horrors of the recent railroad disaster—and we can scarcely recall any catastrophe of a similar nature where the details have been more terrible,—it is refreshing to read of the noble humanity and heroic effort to relieve suffering which were characteristic of some of the passengers on the ill-fated train. It does not mitigate the sufferings of the poor victims; it cannot restore the dead to life or alleviate the sorrow in so many households; it does not palliate the criminal foolhardiness and recklessness of the conductor of the freight train, and yet one cannot read of the noble work of these men and women, and of the remarkable fact, that, although this disaster occurred in a neighborhood inhabited by rough people, there was not an unseemly act committed, without feeling a sense of thankfulness and admiration, and having a more abiding faith in the nobility of humanity. It is no discredit to the great majority of those who were witnesses of this disaster that they were so paralyzed with horror as to be utterly demoralized, and that their very first impulse was to fly from the dreadful scene, to turn their eyes from the heart-rending sight, and close their ears to the wails and groans of agony. Nearly all the passengers had retired or were retiring for the night. This sudden and terrible change, this unexpected summons to meet death at an instant's notice in its most terrible form, was sufficient to

appal the stoutest heart. The darkness of the night, the sudden crash, the rending of the ponderous engines, the splitting and crushing of cars piled together in promiscuous ruin, the bursting of the boiler and the escape of the scalding steam into a car full of human beings, some of them unable to extricate themselves, others hurled many feet away, and still others to whom death was more merciful and came instantly, make a picture of absolute terror which must forever haunt the memories of those who have survived it.

Dark and terrible as this picture is, however, it is relieved by the noble conduct of a few who rose superior to it, and showed themselves to be the masters of the situation. To master such a situation, and to master one's self at such a time, require mental and physical qualities of the highest order. Humanity and sympathy are not the only elements necessary. They only suggest that something must be done, and, in such a terrible emergency as this, the person who does not feel these promptings is a little lower than the brute. Probably every person on the train who escaped unhurt felt as if he must do something, and yet it is evident that but two out of the large number were not wholly overcome and demoralized. Even the conductor himself, upon whom passengers place reliance at such a time, was of no more help than if he had been a thousand miles away. Two men, however, in addition to their humanity and sympathy, had coolness and presence of mind enough to realize the extent of the disaster, to see the necessity of doing something immediately, and to determine what must be done. These two men, Mr. B. R. Hawley, of Normal, and the Texan, Magee, had all these qualities, and when others stood terrified, or fled demoralized, or waited for some one to take the lead, they bent all their energies to the work of rescue, directed others, and worked like heroes themselves until all the victims in the smoking-car were taken out from their prison-house of torture, and tenderly cared for until help arrived

from Lemont and Chicago. Such men as these never want reward, for their reward consists in the consciousness that they have done a man's duty, in a manly way; but to this will be added the fervent gratitude of those who survive, and the tearful blessings of the friends of the dead.

Mrs. Robert McCart, of Bloomington, "a little lady who worked like an angel," as Mr. Burgess, the sleeping-car conductor, says—found her mission,—some how it is almost always the little women who have the great hearts and strong nerves—and she performed it like a heroine, and the angels of mercy above must have recognized one of their number in this angel of mercy below. The deeds of these men and women belong to the unwritten history of heroes, and yet there must come a day when much that appears great must be pronounced small, and on that day these will be recognized and receive their reward. The record of the deeds of heroism on that night would be incomplete without a reference to the clear grit of Mr. Lettle, of Springfield, who, while in the agony of death, sent for the sleeping-car conductor, told him his name, made his will and signed it, and handed over his watch and jewelry to be sent to his wife and family, and then requested the conductor to leave him and help those to whom help would be of avail. That man was made in the heroic mould. He was horribly scalded, boiled and mutilated, and yet he would not die until he had performed his last duty like a man. In this terrible retrospect it is gratifying to contemplate such instances as we have cited. It proves once more that, in the presence of these great catastrophes, as high a nobility of character and as chivalrous a degree of purpose may be developed as the world's battle-fields have ever shown, or the pages of history have recorded.

NEVER make a fool of yourself by writing a letter while in a passion; and, even if under great provocation, take a noble pride in exhibiting the dignified courtesy of a gentleman, and the forbearance of a Christian: and remember the more you gloat over the severity of what you have written, the more of an ass you will be for sending or publishing it.

SPITTING.

"It is a curious thing to consider how many people there are in the world whose daily habits are very little superior to those of the beasts of the field. They do not understand the use of the bath. They are guilty of all sorts of dirty practices; and it is one of their peculiarities that they care nothing whatever for the annoyance or discomfort they inflict upon others. They are half unconscious that their own habits are very objectionable, and consequently, they do not always reflect that they give great offence to others; they live like pigs themselves, and naturally fancy that the manners and customs of the sty are universally popular and agreeable. Consequently, they go about the world a nuisance to everybody, and are utterly incapable of learning anything from the example of better people around them.

"The spitters are among the most offensive of this numerous class. They have no respect for man, woman or child. You see their tracks in every thoroughfare and every public building. They would as soon make their mark on your best carpet as on the roadway. Half the people to be met with in the streets are dangerous to pass—for, just as you get up to them, they discharge a volley which you are likely to receive full on dress or coat, without hope of 'dodging' it. Ladies, of course, suffer the most. They cannot get out of the way; and the chewers care little for their feelings in the matter. They regard the world as a huge spit-box, and would resent any suggestion as to the filthiness of their actions as an infringement of personal liberty.

"In street railway cars, the nuisance is almost worse than in the streets. The driver very likely chews, and his contributions to the universal spitoon are carried through the car, to the great delight of the passengers. Or a man will seat himself by the window at the upper end of the car, and begin scattering his favors on all sides of him: on the mat, out of the window, to the right, left, or any side he may momentarily fancy. The wind may be ahead, and thus diffuse the shower in a spray through the car. Remonstrance is useless. 'A man has a right to spit: hasn't he?' And if you don't like it, you can get out of the car and walk.

"Those persons are what a famous lecturer calls 'beasts way down.' The language sounds strong, notwithstanding its obscurity; but the Amherst young men probably understand it. At any rate, there can be but one opinion among decent people with regard to this foul habit of spitting. It is a thing to be checked, if possible. But if anybody asks us how it is possible to do it, we shall be obliged to say that we do not know. This is one of those evils which we can only describe without professing to supply a remedy."—*N. Y. Times*.

[It is tobacco-users who spit, and make such nuisances of themselves. Women

and children seldom spit. No man in perfect health spits. One may have a cough, raise phlegm, and throw it off; but he is ill. A horse sneezes, after eating weeds, as a slovenly man spits after eating nasty tobacco. But, in such cases, both horse and man are sick, and need renovating, purifying, curing. Abstinence is the remedy.]

SELF-DISCIPLINE.

DR. ANDREW COMBE is an instance of what may be done under the most disadvantageous circumstances even by a hopeless invalid. He was well educated in medical science, and, for many years, he practiced as a physician. Then he was compelled, by disease of the lungs, to withdraw himself from the active duties of his profession. He had now to watch his own health with the utmost discipline and caution. He knew that he was suffering from a fatal disease, from which there could be no hope of cure, but he knew that with the utmost care and self-control, his life might be indefinitely prolonged, though always with a feeble and uncertain tenure. He fully acted up to the conditions which he saw imposed on him, and his life was spared during ten years. In this period of extreme ill health, caused by extensive organic disease, he addressed himself to literary labor, which had wide usefulness and popularity. He issued volume after volume, in which he made important knowledge intelligible to almost every order of mind. His long experience as an invalid was useful to many invalids, on whom he urged the necessity of moderation and self-discipline. With all his weakness, there was hardly any healthier man who lived so active and beneficial a life. A writer speaks of "that tall, spare figure, with its bright, mild, and benevolent eye, and manner modest, yet firm and self-controlled—a man who struck the observer at once as above the ordinary stamp. The expression of his face, to a casual observer, showed that he bore what he had to endure with manly fortitude. There was no querulousness, no discontent, no peevishness,

no disappointment in the lines of that face. He was in a region above complaint. He used the talents which had been entrusted to him, and with abundant reward."—*Leisure Hour*.

Pacific Department.

C. F. YOUNG, M. D., Cor. Editor.

LITTLE THINGS.

SMALL, diminutive, not of much importance! "Let it go, it's only a little thing!"

Very true, but even a thistle can cause acute pain, and annoy one beyond their power of endurance.

"My stomach is sour, but a little soda makes it all right."

A year passed, and my friend was a confirmed dyspeptic, suffering all the horrors of mental, spiritual, and nervous depression. Five dollars' worth of hygienic books and journals, and one half hour a day of thoughtful reading put into practice, would have saved five hundred dollars, and better than that, the comfort and temper of the whole family.

"Don't fret like a baby, it's only a slight cold." The timely attention of quiet, and fasting, and warmth was neglected. Four months later, the beautiful, but frail young daughter was laid away in the tomb. Attention to the little items of comfort, in the way of thick-soled, loose shoes, woolen stockings, warm, knit drawers, and loose-fitting waists, with the sash of sitting and bed-room windows down at the top, would have prevented the first cold.

Then, the "little" matter of a sweating bath, with quiet and diet, would have made all the difference between a vigorous young life full of hope on the one hand, and bereavement and an expensive funeral on the other.

The baby cried for green currants. "Poor little thing, give it all it can eat. Give it anything to stop its crying."

The child had currants three days, and died in spasms. Examination proved the lower bowel and intestine impacted with currant seeds.

A very "little" good sense and practi-

cal knowledge of the delicacy of the stomach of a nervous, weak little child, would have prevented suffering and death.

An intellectual woman, wearied and worn by care and a long journey, at night ate "just a little mince-pie, only a small plate of cakes and roast pork, washed it down with only a little strong coffee. In five hours she was delirious. Typhoid fever took her to the doors of death. A small portion of reason would have sent her to bed fasting, and with forty-eight hours of good nursing, she would have been convalescent.

"Mamma, my head feels badly, I don't want to go to school to-day."

The little one had cold hands and feet, a flushed face and hot head. "Don't act like a baby: behave yourself, and run along to school," said both father and mother. Brain fever, long days and wearying nights, full of care, followed this failure to use three grains of good sense.

A young man, home from school, where he had been overtaxed in every direction, was taunted by his father with not being worth his salt. The lad replied, "Father, I will try at least to earn my food." He dug potatoes two days, keeping up with the stout Irishmen. Men and parents said, "Who thought there was so much spunk in our John?" The third day, hemorrhage of the lungs ensued. Long medication was powerless to save. Religious excitement followed, when most perfect rest should have been the rule. The promising lad of nineteen is dead and buried: a victim to a little mistake thoughtlessly made.

It's only an hour or two of chilly, damp morning, I guess he can stand it. It's only a little crab-apple, let him have it. The delicate weanling crept out in the damp grass, and amused itself nibbling crab-apples. Flux was the result. Anxiety, wakeful nights, a dead child and expensive funeral.

These things are of daily occurrence. To profit by the lesson, the attention of all people should be given to the details of every-day life. Regular hours of rest,

sleeping-rooms and beds sunned and aired every day. Ripe and cooked fruits eaten at meal time, never between meals. Warm, wool stockings and drawers for teething children. Loving, persuasive arguments and facts from both father and mother, to keep young daughters to the line and rule of right. Sunshiny welcomes and admonitions to our over-taxed student boys and girls home from or going to college, and a conscientious adherence to and practice in our every-day life of the principles of hygiene, we know are true and right.

AMERICAN HABITS.

Heald's California Journal says we are a greasy people. From the pork fat of New England to the ham fat of the South, we wallow in greasy food. This becomes rancid in the stomach, and superinduces the sum of all diseases—dyspepsia. We drink tea that would frighten a Chinaman, and coffee that would serve as an antidote to opium. We pour down doses of alcoholic fluids which eat into the coatings of our stomachs and destroy the gastric juices. We go to bed over-tasked, body and mind, sleep with sluggish blood in a state of stagnation, and get up only when the broad sun is staring in angrily at us through our bed-room windows. We are reckless in our pursuit of money or pleasure; we strain our mental powers to their utmost tension; and end, old men and women before our time, or die from apoplexy or heart disease, or fill a cell in an insane asylum.

[Mr. Heald paints the picture quite true to perverted nature. When THE SCIENCE OF HEALTH shall be found in every family, there will be better living and longer life among the people.]

COOLING off suddenly when heated sends many of our farmers' youth to an early tomb. It is often a matter of surprise that so many farmers' boys and girls die of consumption. It is thought that abundant exercise in the open air is directly opposed to that disease. So it is; but judgment and knowledge of the laws of health are essential to the preservation of health under any circumstances. When over-heated, cool off slowly—never in a strong draught of air. Gentle fanning, especially if the face is wet with cold water, will soon produce a delightful coolness, which leaves no disagreeable results.

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

SEASONABLE DISHES.

BY JULIA COLMAN.

New Corn Meal.—Hasty Pudding.—New-England Samp.—Hulled Corn.—Millet in Mash, Soups, and Puddings—A desirable New Grain.—Quinces; Canned.—Quince Pudding Sauce.—Squashes and Pumpkins.—Pumpkin Pie.—Baked Pumpkin and Squash.—Carrots.—Beets.

THE cooler weather signals a change of diet. It does not take away our fruits; they are laid up to keep the year around; but it asks the addition of more that is solid. We are able to exercise longer, to work harder, and we need more solid food to support us in doing so. We also need less of the fruit juices to make up for the perspiration which keeps us cool during the Summer heats. We can afford, then, to bid adieu to the more watery fruits—the striped and the ribbed melons, and welcome the richer grains which Nature, ever mindful of our wants, has been preparing for us.

Here is our favorite Indian corn in another guise—not the soft and juicy kernels of the sweet corn (though we shall not refuse them so long as we can get them), but the hard, rich, yellow grains, ripened perfectly by our fervid suns, and just now done to a turn and ready for the husking. We have given it but a small corner in our store-room of late, not only because we have needed it less, but because it has been exceedingly difficult, ever since the Summer heats commenced, to get a good article. Maize meal does not keep well. I do not wonder that foreigners dislike it, but I do wonder that we, knowing how poorly it keeps, do not always export the unground grain, and, if we could afford the room to send it on the cob, that would be better still. We see no end of pains taken in these days to put up dry goods and fancy goods in boxes and cases that will carry them uninjured, but there is yet abundant opportunity to apply the niceties of transportation to human food.

The sooner corn meal is used after grinding the sweeter and fresher we find it. People who can get their own grinding done to order, and appreciate such things, have corn meal ground fresh once a month. After grinding, it should, for a day or two, be spread out, not more than an inch thick, in a dry, cool room, to prevent heating and souring. This is desirable at any time, but especially in hot weather and in the case of very new corn. Even after such exposure it cannot be safely packed away in any large quantities, as in barrels or large bags. Paper bags that hold about a peck are the safest. A meal-chest will do if the meal be not more than three or four inches deep, and if it be opened and stirred frequently. Gradually this care may decrease as the corn becomes drier and the weather colder, though it is always best to spread it in a dry room for a few days before packing in barrels, especially if it is to be kept much above freezing temperature.

The manufacturers and dealers, of course, know of these difficulties, but their aim is generally to take just as little pains as possible, and yet secure the market; and so they impose on the ignorance of the people, and, of course, corn meal becomes depreciated and disused. Another result is that we can never in the market get new corn meal. We must wait until late in the Winter, eating meal made from old corn, because, forsooth, that made from new corn will not keep! But country people can do differently, and we know of some who secure their

New Corn Meal as early as the first of November, after this fashion: A bushel or two of ears is spread in a warm, dry place, until dry enough to be shelled. Then the shelled corn is spread for a week or two more, and then taken to the mill and ground coarsely, and brought home at once and spread again on a clean

sheet; perhaps remaining spread until used up, which probably will not be a long time, for it will be liked too well to be neglected. And, by the way, speaking of grinding reminds me of what I very much wish to say: that all corn should be ground coarsely. Not only will it keep better, but there is hardly an article of cake, bread, mush or pudding, that is not better made of coarse than of fine corn meal. Quite a number of dishes can be made perfectly light without soda, yeast, or "lightening" of any sort, if the meal be coarse; and this a great advantage, for no kind of meal is more deteriorated by these foreign substances. But now, having secured the meal, the very first article we shall make of it is

"*Hasty Pudding*," as it is termed in New-England. Sift the meal, (when you want it, not before, for it keeps better unsifted,) using the oat sieve, removing only the coarsest of the bran. Have the water in an iron pot, (porcelain-lined or not,) and boiling over a fire hot enough to keep it boiling until the mush is made; put in as little salt as you want, and then sift in the meal with one hand, while stirring the water with a spoon or a pudding-stick in the other. By the way, this "pudding-stick" was an indispensable, though not very elaborate, household utensil in the olden time, and if any one wishes the genuine article, he can easily manufacture one out of ash or oak, making it very nearly like a miniature boat-oar eighteen or twenty inches long.

There is some "knack" in putting in the meal fast enough to beat the lumps out before they are boiled hard, and not so fast as to create large lumps. The coarser the meal, the more easily the mush is made. If it is fine, add meal until as thick as you want it when done. If coarse, take about one part meal to two-and-one-half parts water. Some meal requires more than others. Stir frequently until it sets, and then, in both cases, cover close and remove to a part of the stove where it will barely simmer. Cook gently without stirring from one to two hours, the longer time for the coarser meal. To be wholesome it should be

thick enough not to drip when ladled out. It may be trimmed with syrup, soft-boiled egg, sweetened cream or milk; the latter in small quantity as a dressing, not enough to float the mush down without mastication and insalivation. Further to promote these desirable processes, it should be eaten with bread of some kind, say fresh wheat meal gems, crackers, or oat meal breakfast cake. The directions for cooking it may be followed to advantage with other mushes.

New-England Samp is about as coarse as the coarsest "small hominy" in the market, and, when made of new, yellow corn, is far more delicious. The kitchen sieves we formerly had were of no use in taking out the bran, and so, with much trouble, we washed it in many waters, and floated the bran off. But this took away some of the sweetness also, hence the oat sieve is better. And if it will not readily all go through, the coarsest of the bran can be removed by hand from the surface of the sieve. Then the meal can be poured into about three times its measure of boiling water, and cooked slowly two or three hours, with occasional stirring until it "sets," after the directions given for cooking the "Hasty Pudding." This dish is most frequently met with in Fall and early Winter, because of its superior sweetness when made from new corn, and because it is easier to grind the damp new corn coarse than fine.

Hulled Corn was prepared by boiling nice whole kernels in the lye from wood ashes until the hull had mostly disappeared, then the alkali was taken out by continued soaking and washing. But this method destroyed much of the sweetness of the grain, and never quite removed the taste of the lye. It is much better to wash, and then cook the corn gently five or six hours, or until the hulls loosen readily, then they can be picked off at table with the fingers or with a fork upon a plate. This is for people who can spend time to eat properly. If, however, it is to be made into a dish already hulled, pinch off the hulls by hand, being careful to have the chits in. It is little if any

more trouble than the old method of preparing it with lye, and it is much sweeter. Then return the corn to the liquor in which it was boiled, and cook until very tender, seasoning at last with salt, and, if desired, a little cream, (or green corn cream,) just before removing from the fire. It may be eaten with vegetables at dinner, and it makes a fine breakfast dish.



Millet. This is a tiny relation of our big-kernelled corn, which we have not yet come to appreciate in this country. It is a European or Eastern grain, not American, but when examined with a magnifying glass, the plump little kernels betray its likeness to our *Zea Mays*. One species is raised for poultry, another for grass or hay, and still another is among the ornamental grasses, but the golden millet differs from these; what we find in the market is imported from Germany, and, so far as I can find, it is not raised here, excepting, in rare cases, for private use.

It is very convenient, for it requires neither grinding, sifting, nor hulling, only a little looking over and washing. For mush, it should then be scalded in two or three successive waters, and boiled in about three times its measure of water, covering close, and cooking an hour or more. It makes a light, delicate mush, harmonizing better than most of the mushes with fruit, berries, and baked apples. Our German friends use it largely for thickening soups, as we use rice, and it requires about the same treatment. It makes an agreeable variety, and must be more wholesome than rice. It is also

used for puddings after being cooked, when it proves lighter and more delicate than corn meal. It can be had of the large German grocers, but we ought to raise it for ourselves. It would be a desirable addition to our smaller grains.

Quinces. But we do not propose to dismiss the fruits, nor to array them against the grains. We cannot, even, very well compare their respective merits. Like husband and wife to the family, so the fruits and grains are both necessary to the perfect meal; each has its place which the other cannot fill.

Here is a fruit of rare flavor, awaiting our appreciation. The quince has of late been greatly improved by the introduction of the kind known as the apple quince from its shape, which is more rounded than that of the pear quince. The flesh is much more tender, and of better flavor; crude and tasteless as the quince is when raw, it gives prophecy in its exquisite fragrance of its capabilities when cooked. It has more than enough flavor for itself, and shows to the best advantage when used to flavor other fruits, as the apple and the pear. One-third quince to two-thirds sweet or



slightly tart apples or pears, make a charming dish cooked together, and sweetened to the taste. This is improved by letting it stand some hours, so that the flavors may thoroughly intermingle. Stewed apples or pears are with quince made into quite a fancy dish, by adding the juice of stewed grapes. Apple marmalade pudding (made with alternate layers of bread and apple marmalade) may be improved by the addition of some quince. *Canned quinces* are very convenient for winter use; they are prepared

like other fruit, stewing ten or fifteen minutes, or until tender. They are much more digestible than quince preserves, and can be used by themselves, or with fresh or dried apples to good advantage. If you try them once, especially with dried apples, you will not be likely another season to neglect putting up a supply. And in putting them up or in dressing them for any purpose, do not forget that almost every part of the fruit is valuable. The parings should be saved, covered with water, and stewed till tender; then the water drained off and the clean cores and seeds put into it, and soaked until the mucilage around the seeds can all be washed out and dissolved. It requires two or three hours. The quantity of this curious starch is surprising; I have obtained enough to make a pint of water very thick, from the cores of three medium-sized quinces. I am told that it was at one time much used for making the "bandoline," with which ladies sometimes stuffed their hair. It is often put into quince jelly. I use it to stew the quinces in, if I wish to give them a thick, rich juice. With a little of the quince juice added, it makes a charming

Quince Pudding Sauce, already thickened; suitable for apple dumplings, grape puddings, and American plum pudding. Pour it over shaved cabbage, and cook half an hour, and you have an excellent *Quince Cabbage Stew*. This thickening can also be canned like the fruit, and kept until wanted.

The quince should be more generally cultivated for the sake of its fine and abundant flavor. It is certainly quite equal to any of the foreign condiments which we use so freely in our puddings and sauces, and much more wholesome.

Those larger fruits, our pumpkins and squashes, are in their prime now, and they will be in special demand this month. Pumpkin pies for Thanksgiving are not always given up, I fancy, by people who think they set quite a hygienic table. We are sorry that they cannot be made much more hygienic; but we have thus far sought in vain for a satisfactory substitute for the milk. Water,

corn starch, and even corn milk seem to us so far below the mark, that we do not care for them. Rather than disgust people with such "substitutes," we will provide some other dessert, and will serve the pumpkins in some other shape. However,

Pumpkin Pies, as commonly made, can be very much improved. In the first place, the eggs can be omitted. From my childhood, I have seen pumpkin pies made without eggs, and prefer them so; but the pumpkin should be tender and rich. It should be sweet, and cook quickly. All this is easily ascertained before making the pies, and if pumpkins cannot be had answering the description, use winter squashes; stewed, of course, in either case, without loss of juice. Next use the fruit and the milk in equal parts; and then the crust, which is the worst part, can certainly be greatly improved by making it of scalded oat meal, as previously directed. If the edge of the crust looks too rough, cut it half way up the side of the pie dish, and let the pumpkin filling come just above it. Be sure that it bakes on the bottom.

Another crust is made by sifting rather fine corn meal upon the bottom of the oiled dish to the depth of full one-eighth of an inch. Add a little more milk to the prepared pumpkin, and pour it gently over the meal, and bake as usual. The milk will wet the meal, and a hot fire will bake it sufficiently, so that the crust will be of a nice consistency, and there will be very little trouble in dishing the pie. Cut as usual, then run a sharp knife around the sides of the dish and lift carefully. No one will guess what the crust is made of, and you will do well not to set them to guessing, unless they fear that it will hurt them. There is nothing hurtful about the pie but the baked milk, and that we cannot recommend as an article of diet. And the sweetening? Well if the pumpkin is as sweet as it should be, the pie will need no sweetening; or, it can be sweetened with watermelon syrup. By the way, some people at a distance from market may have on hand at this time of the

year melons which they cannot well use. If they can devote some spare evenings to extracting the juice and boiling down to a syrup, they may get pay for their trouble.

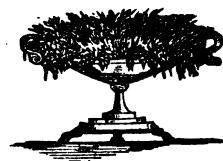
Baked Pumpkins are by no means to be despised; if sweet and tender, cut them, without paring, into pieces three or four inches square; lay them on a pan, skin side down, and bake an hour or more in an oven hot enough to bake without burning. Serve hot without dressing as a "vegetable" at dinner, or cold at breakfast. This is also a favorite mode of preparing the Hubbard and other rich winter squashes. Some prefer them to sweet potatoes; where the latter cannot be had. Good sweet pumpkin or squash, stewed down, makes a very good fruit dish for breakfast or dinner, or to eat with milk. This, to my notion, is much the best method of stewing squash; cooking it in very little water, turning off none of it, and seasoning it with sugar instead of salt.

The roots of the season are waiting yet. Well, we can afford to let them do so—they are waiting for their betters.



Carrots for example; they are handsome enough, the handsomest of the roots. That is the best thing about them for table use. If I were going to get up a grand dinner, I should almost want a dish of them for their beauty, or else I should use them for garnishing some other dish. In the former case, I should scrape and boil them whole; in the latter, I should cut them cross-wise or in some fanciful shape. They can be served in

their own juice, or in white sauce, or in soup, but they are much better uncooked for horses. Let them have them. Perhaps they too admire their color, and why should we eat everything? I would



have an appropriate sauce of the tops. They are very pretty for ornament. They trim a fruit dish nicely. I would have a few young ones left in the ground, and covered with matting before hard frosts come, so that they could be used when desired through the winter. Parsley may be treated in the same way.

If any one insists upon cooking them, the Early Horn is the best, and so says R. H. Allen, the well-known seedsman, who has very kindly furnished us this cut.

Yet, some of the roots are very acceptable, if stomachs are strong enough to digest them.

Beets for example; a little more nutritious than turnips and cucumbers, and far more palatable without seasoning. I remember beets as eaten in the country; beets that were taken carefully out of the rich garden mold, just when wanted; the leaves cut off above the root, the latter washed with a cloth as gently as if the larger roots were some artery that might be wounded and let out the life-blood, dropped into boiling water, tried with the fingers, and when done skimmed out into cold water, where the skin may soon be coaxed off by gentle pressure, as easily as if it were some outer garment, in which the beet was to grow and get cooked. Those beets did not need any seasoning. They repaid every iota of the careful treatment, in taste if not in nutrition.

We do not get such beets in the city. These are pulled up roughly, they are exposed to the sun and air, they are beheaded, they are bruised and broken,

and withered. I do not eat such beets. I would as soon eat a withered cabbage leaf.

If boiled beets must needs have a dressing, let it be a little rhubarb or green grape, or diluted lemon juice, or better still, to my fancy, pour over them a milk-white sauce. If a few peeled mealy Irish potatoes are cut up with them, under the same dressing, all the better. If any are left to get cold, cut them up into quarter inch pieces, put them into a frying pan with milk, cover up and heat through; then add twice the quantity of cold chopped potatoes, fill nearly full of milk, cover and cook till the potatoes begin to break; then salt slightly, and stir thoroughly, and when the milk is nearly all absorbed, dish and serve warm for breakfast, calling it "beet hash." Beets can also be baked.

The blood beet, blood turnip, and white sugar beets, are the best varieties in common use. As we have before hinted, beets need careful treatment in stowing away. They should not be exposed to the sun, nor washed, nor yet put away in much dirt. Their tops should be cut an inch above the root, and they should be kept in the dark, where it is damp enough to prevent withering; on the cellar bottom, or in a root house.

After all, they hardly repay the trouble. For those who need their meat diet, cooled off with coarser trash, they do very well, and for those who must have a large variety. But those who prefer simplicity and good taste will still think the fruits and grains superior to the leaves and roots.

SAVING SWEET POTATOES.—A man in Arkansas gives this method: "Construct a house after the following plan: Build a double wall, with a space of ten inches between the walls, and daub closely inside and out; then fill up the space between the walls with dry dirt. At the proper height place a loft of logs closely laid and daubed, leaving a square hole, two by three feet, to admit air immediately over the door. The potatoes should be dug as soon as ripe, which may be known by breaking and laying up for a few hours; if ripe, they will turn white where broken; if not, they will become dark. When ripe, dig and leave them in the patch, two or three days, exposed to

the sun; if cold, throw vines over them to protect them from frost. They should remain in the sun a sufficient time to wilt, after which they may be housed. Potatoes should be sorted before being put up. Place in piles of thirty bushels, and sift on dry sand until all crevices are filled. When the weather is warm leave the door open to admit free circulation of air. The hole in the loft should never be closed. This system will save sweet potatoes."

ELDERBERRY INK.—Take one-half gallon of elderberry juice, an ounce of copperas, two drachms of alum, and twenty drops of creosote dissolved in a small quantity of alcohol. This makes a very good violet ink.

CHAPPED HANDS. Take common starch, and grind it with a knife until it is reduced to the smoothest powder, put it in a clean tin box, so as to have it continually at hand for use. Then, every time that the hands are taken from the suds or dish-water, rinse them thoroughly in clear water, wipe them, and while they are yet damp, rub a pinch of the starch thoroughly over them, covering the whole surface. The effect is magical. The rough, smarting skin is cooled, soothed and healed, bringing and insuring the greatest degree of comfort and freedom from this, by no means insignificant annoyance.

PROTECTING ORCHARD TREES.—Mulch the roots with straw or coarse manure and litter, being careful, however, not to throw it immediately about the bodies of the trees. No matter how heavily you mulch. Then to protect the bodies of the trees from sun and frost alternately, as well as from rabbits, bind them about with corn stalks stripped of the foliage.

RECEIPT FOR A HAPPY HOME.—Six things, says Hamilton, are requisite to create a happy home. Integrity must be the architect, and tidiness the upholsterer. It must be warmed by affection, and lighted up with cheerfulness; and industry must be the ventilator, renewing the atmosphere and bringing in fresh salubrity every day; while over all, a protecting canopy of glory, and nothing will suffice except the blessing of God.

LIGHTING A FIRE.—Many persons have often noticed the extreme difficulty encountered in lighting the fire in a stove, especially in a still, damp morning. The stove at first won't draw; even vigorous "blowing" will not suffice; and then, when it does start, it is with a sort of explosion, or outward rush of air, which fills the room with smoke and gas, oftentimes puffing the unpleasant fumes in the face of the operator. The trouble is caused by the difficulty encountered in overcoming the inertia of the long column of air in the pipe or chimney, by the small column of air that can be forced up through the interstices

of wood and coal, at the bottom of which the fire is kindled. All this may be remedied by simply putting a few shavings or bits of dry paper on the top of the wood or coal, and first lighting that; it immediately bursts into a blaze, because the air has perfectly free access to it from all sides, the heated air forces its way into the chimney, and establishes there an upward current. The match can then be applied to the kindling under the fuel, which will readily light, and if dry, burst into a brisk flame.—*Am. Rural Home.*

BEST TIME FOR PAINTING HOUSES.—The best time for painting the exterior of buildings is late in the autumn or during the winter. Paint then applied will endure twice as long as when applied in early summer, or in hot weather. In the former it dries slowly and becomes hard, like a glazed surface, not easily affected afterward by the weather, or worn off by the beating of storms. But in very hot weather the oil in the paint soaks into the wood at once, as into a sponge, leaving the lead nearly dry, and nearly ready to crumble off. This last difficulty, however, might be guarded against, though at an increased expense, by first going over the surface with raw oil. By painting in cold weather, one annoyance might certainly be escaped, namely, the collection of small flies on the fresh paint.—*The Technologist.*

CULTURE OF CRANBERRIES.—Where do all the cranberries come from, is a question often asked, and on investigation we are fairly astonished to witness the rise and remarkable amount of business now transacted in this small fruit. To those having low lands, useless for any other purpose, the cranberry once planted, often yields the possessor a greater profit than any similar area of other crops on the same farm.

The consumption of this fruit is extending rapidly into all parts of the world; is becoming more and more a household necessity. No tea-table is now considered complete without it, and on ship voyages it is of almost indispensable utility. New Jersey raises the largest bulk of cranberries in this country, employing about six thousand acres for the purpose, the value of the crop raised on which, last year, was \$600,000. The whole cranberry crop of the country is estimated at about \$1,500,000. Massachusetts raises not less than ten thousand barrels a year. Within the past five years Wisconsin has made rapid progress in the culture of the cranberry, and the crop in that State this season is estimated at \$300,000. The average price per barrel of this fruit is \$10, Cape Cod cranberries commanding the highest price. The fruit raised on the Cape is the best of its kind in the world. It is exported largely to England, and finds its way to the Queen's dinner-table.

Those who have spots usually regarded as waste places on their farms, places too wet to plough or to mow, may, by proper management, have their

cranberry patch, and grow for home consumption and for market. Let such waste places be utilized by growing cranberries.

A FRUIT HOUSE AND HOW TO MAKE IT.

—The essential conditions for preserving apples or other fruits in the most perfect state, for as long a time as possible, are:

First: Coolness and evenness of temperature. A uniform temperature of 36° is the most favorable, and from this there should be no greater variation than 4°. After steady cold weather sets in, this degree of coolness is easily maintained; but prior to that season, it requires considerable attention. Whenever the temperature in the fruit-house rises above 40° in day time, all ventilators have to be closed until evening, when they are opened again and left so during the night.

Second: Dryness of the atmosphere without desiccation. Exclusion of light is desirable, but not absolutely necessary.

These conditions exist in most good cellars, but when more room for keeping fruits has to be provided, it will be found cheaper to build a fruit-house than a cellar. A friend uses, with good results, a fruit-house built of brick, 18 feet wide and 30 feet long. The walls are 12 inches thick and about 10 feet high. Against their inner side are spiked studs 4x6, 4 feet apart, and to these is nailed a tight board partition. The intermediate space of 6 inches is filled with dry sawdust. The roof is covered with slate, and is likewise underlined with a sheet of sawdust, 6 inches in thickness. There is a tier of shelves nearly three feet wide and 2 feet above one another on each side. The bottom of the shelves is of slate, $\frac{1}{4}$ inch apart, so as to allow the air to circulate around the fruit. A thin layer of straw is spread over the shelves before the fruit is placed on them. Not more than two or three layers of apples are put on a shelf, with the exception of russets, which are stowed a foot or more in thickness. The center space of the building is used for packing and storing barreled fruit. At the center of the ridge of the roof is a large ventilator. There is also chimney and a brick-stove in the building, but there is scarcely ever any necessity for using it. Where brick is not easily obtainable, a wooden building may be constructed so as to answer all purposes equally well.

Careful observation has convinced us that apples keep better in shallow bins than in barrels, and that the time saved in assorting, and the ease with which decaying specimens can at any time be picked out, speak much in favor of bins. When, however, apples must be kept in barrels, it is very important that the barrels are headed up on a dry and cool day, and not when the atmosphere is damp. Apples keep better in somewhat loose than in very tight barrels, better when the barrels are laid on the side than when standing upright, and better in a cool dry cellar than outdoors.

CARE OF CANARY BIRDS.—Hang the cage where the drafts do not strike the bird. Give canary and rape seed, plenty of fresh water, cuttle fish bone, and clean gravel on the bottom of the cage often. Also, give the birds fresh water to bathe in every day. After they have bathed, remove the dish, which should be shallow. The room should not be over heated. Do not give them cake or sugar. When moulting, feed them on rape seed slightly moistened. Hard boiled egg and crackers grated are excellent. Bed seed will kill birds. Cabbage and sweet apples are good for them, and now and then a fig. Plantain seed is also wholesome food for them, and they are extravagantly fond of it, often eating that when they reject most other kinds of food. When you go out for a walk, be sure to gather a sprig for your pet, and before frost gather and dry some for winter use. With moderate care the little songstress will repay your attention with sweet notes of joy.

DANGEROUS COSMETICS.—In a paper read to the Paris Académie of Medicine, the necessity is argued of preventing perfumers from selling poisonous or dangerous articles, which should be left exclusively to the responsibility of regular chemists, and not sold without a physician's prescription. Arsenic, the acid nitrate of mercury, tartar emetic, cantharides, colchicum, and potassa caustica, are common ingredients in these cosmetics. The so-called lettuce-soap does not contain the slightest trace of lettuce; and this and other soaps are colored by the sesquioxide of chromium, or of a rose color by the sulphuret of mercury, known as vermillion. The cheaper soaps contain thirty per cent. of insoluble matter, as lime or plaster; while others contain animal nitrogenous matter, which, having escaped the process of saponification, emits a bad odor when its solution is left exposed to the air. The various toilette vinegars are also declared in this paper to be so far noxious, that, being applied to the skin still impregnated with soap and water, they give rise to a decomposition, in consequence of which, the fatty acids of soap, being insoluble in water, are not removed by washing, become rancid, and cause chronic inflammation of the skin.

TO MAKE SHIRT-BOSOMS GLOSSY.—Dissolve three ounces of clean, powdered, white gum Arabic in one pint of water. When thoroughly dissolved, strain it through a piece of cotton cloth, and bottle for use. One tablespoonful of this gum water, added to a pint of starch, will give a beautiful smooth gloss to cotton or linen fabrics.

TO REMOVE INK STAINS FROM A BOOK.—To remove ink stains from a book, first wash the paper with warm water, using a camel's hair pencil for the purpose. By this means the surface ink is got rid of. The paper must now be wetted with a solution of oxalate of potash, or, better still,

oxalic acid, in the proportion of one ounce to half a pint of water. The ink stains will immediately disappear. Finally, again wash the stained place with clean water, and dry it with white blotting-paper.

TO REMOVE SILVER STAINS.—One of the best ways is to wash the spots with a concentrated solution of sulphate or chloride of zinc, and to rub the worst places with metallic zinc. Then rinse in pure water, and complete the washing with soap. Ink stains can be removed in the same way.

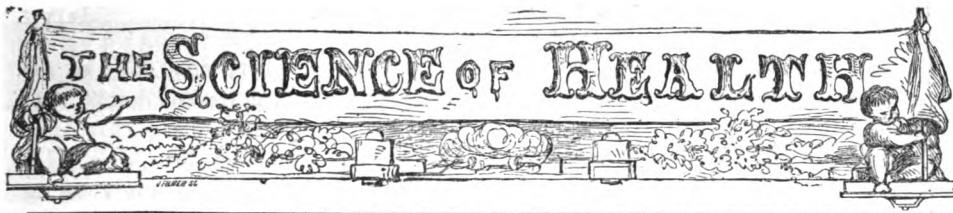
WHEN TO TRANSPLANT EVERGREENS.—The most successful cultivators of evergreens prefer to plant about the time the buds begin to swell in Spring. In this country Spring planting is decidedly preferable to Fall planting.

A CHEAP AND PRETTY HANGING-BASKET can be made of a carrot. Cut the root end off, leaving about a finger. Scrape the inside out smoothly; cut off the leaves and stems. Hang it up at an East window, taking care to keep it filled with water. In a short time the leaves will curl up and cover the carrot.

TO KEEP CAULIFLOWER.—Make a trench twelve inches deep, cover the stalk and part of the head with earth, and cover the whole with four or five inches of straw. This for the latitude of New Jersey.

A PERFECT WATER-PROOF.—A writer in an English paper says:—By the way, speaking of water-proofs, I think I can give travelers a valuable hint or two. For many years I have worn India-rubber water-proofs, but will buy no more, for I have learned that good Scottish tweed can be made entirely impervious to rain, and, moreover, I have learned how to make it so; and for the benefit of readers I will give the recipe:

In a bucket of soft water put half-a-pound of sugar of lead, and half-a-pound of powdered alum; stir this, at intervals, until it becomes clear, then pour it off into another bucket, and put the garment therein, and let it be in for twenty-four hours, and then hang it up to dry without wringing it. Two of my party—a lady and a gentleman—have worn garments thus treated in the wildest storms of wind and rain, without getting wet. The rain hangs upon the cloth in globules. In short, they are really water-proof. The gentleman, a fortnight ago, walked nine miles in a storm of rain and wind, such as you rarely see in the South; and when he slipped off his overcoat, his under-clothes were as dry as when he put them on. This is, I think, a secret worth knowing; for cloth, if it can be made to keep out wet, is, in every way, better than what we know as water-proofs.



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TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

MALARIAL FEVER.

THIS term is applied rather indiscriminately to various forms of disease of a febrile nature, which depend for their causes chiefly on atmospheric impurities, other than animal excreta. Rotting and decomposing organic matter, aggravated by drought, are the principal remote causes; and the resulting fever has received a variety of names, according to its leading symptoms or special complications in different localities, as chill-fever, intermittent, congestive, dumb-ague, etc. Influenza is also another manifestation of it, which prevailed extensively last year among horses, and was termed epizooty. In New Orleans and some other Southern cities, the same disease has recently prevailed in the form termed "dengue," or "break-bone fever." In Arkansas it has recently appeared in the form of pneumonia, and has resulted very fatally—or the medication has. In September it was very prevalent in the vicinities of Alexandria, Manassas, and other places in Virginia. In these places it was termed, simply, malarial fever.

We are sorry to learn that the general plan of treatment for all of these malarial diseases, by the drug doctors, is the old, abominable routine of calomel, quinine, whisky, turpentine, and their kindred killatives. Malarial disease in itself is seldom dangerous, and we fully be-

lieve that if the doctors would only "stop away," very few, if any, deaths would occur. Last year, the horses began to die rapidly in New York and elsewhere, just as soon as the doctors began to dose them; and the same was true of the human beings who suffered of the same disease under the name of influenza, chill-fever, or pneumonia. The following extract from a letter, just received from a correspondent in Arkansas, tells a fearful but common story, and suggests a useful moral, which is susceptible of extensive application:—

"Editor *Science of Health*: Enclosed are thirty cents for your little work, 'The True Healing Art,' which please send to —, who is a doctor of the drugopathic school. He is a friend of mine, and a very estimable gentleman; but last Winter thirty of his patients died of pneumonia—or of the treatment. I take this plan to enlighten him, making him a present of this important little work, without letting him know how he came by it."

If every drug doctor in the land could have such a present within a year, we are of opinion that next year's mortality would be greatly diminished.

HYGIENIC SOCIETIES.

DURING the past year several correspondents have suggested a plan for more rapidly extending the cause of Health

Reform, consisting, essentially, in the organization of Health Associations, and, through them, sending lecturers among the people, and distributing THE SCIENCE OF HEALTH and other wholesome reading matter. We are glad to receive these suggestions. They indicate thoughts in the right direction. But we do not think the field is quite ready for extensive operations in this manner. Public sentiment needs further enlightenment before such organizations will be sustained on an efficient working basis. The doctrines of the hygienic system are new. Its philosophy has not been before the world quite a quarter of a century; and, although a few persons have studied to its basis and mastered its fundamental premises, and many have obtained some general knowledge of its applications, the great masses of the people really know very little about it.

It is very true that lecturers, books, and periodicals are the means by which the public mind is to be educated; and in many places, we have no doubt, Health Associations could be at once established and sustained. But the preliminary work has yet to be done in ten thousand places. And this is: to interest the people in the subject. Whenever a score or more of persons can be induced seriously to think on the subject, the work of preparation is half accomplished. And we know of no method that can do this so effectually, as to place in their hands appropriate and cheap reading matter. Many a person has been turned from druggery to hygienic meditation, recovered health, and become an efficient advocate of our system, by means of one of our journals or books, which fortunate chance or a kind Providence placed in his way.

Good lecturers can do good anywhere; and earnest canvassers can succeed in most places. Either of them can procure a club of subscribers for THE

SCIENCE OF HEALTH, and sell a few copies of "The True Healing Art!" The circulation of this journal and this tract will prepare the way for permanent Health Associations. It is better to defer their organization for awhile, than to have them born only to die. "The True Healing Art" is the best popular exposition of the subject extant; and we never fail to hear of good results where it is circulated. Converts have been made to the hygienic system by a perusal of this work in many hundreds of cases. Indeed, we could name allopathic physicians in this and other countries, who abandoned the whole drug system immediately after reading this work, some of whom are now practicing the hygienic system. We believe that any person who can sell one hundred copies of "The True Healing Art" in his vicinity, and will procure twenty subscribers to THE SCIENCE OF HEALTH, will have no difficulty thereafter in organizing and maintaining a Society on the hygienic basis.

BUSINESS.

THE season opens with a senseless panic. Defaulting cashiers, speculating bank presidents, and excessive importations, together with new, non-paying railroads, have produced a scare and an explosion which affect every business interest. The farmers, in the West, are complaining of the low prices received for their productions, and of the high freights. Taxes, city, county, state, are due, and must be paid. Interest, too, is due. The merchant, mechanic, manufacturer, school-teacher, physician, clergyman, must be paid. Is it wise to "crib" another year's corn crop, while millions of bushels of the old crop are still on hand? But, what else can be done? All should remember that, "A lively sixpence is better than a slow shilling." We want more ships to transport

our products to other countries. We must export more, and import less. Must increase facilities for inland transportation by laying double tracks, etc. Canals must be enlarged; ship canals must be built, and new avenues opened between East and West. Let East and West trunk lines be pushed to completion. All the roads will be glutted.

In former years, the average of new lands brought under cultivation was not far from 10,000,000 of acres a year. Of late, it has reached nearer 40,000,000 a year, and our productions are proportionally large. The great West is no longer a mystery. Numerous railways have penetrated the "heart of the continent," and thousands of new homes are monthly established. Let our statesmen and legislators take note of these changes, and act accordingly. "Internal improvement" must be the cry. We lead the world in personal liberty, freedom, self-government, common school education, invention, etc., under our Democratic Republican institutions, and we *ought* to lead it in state and national enterprizes. Let us, of this nineteenth century, prove "man's dominion over Nature," by subduing to our use the powers of the tides, the currents, the winds, light, heat, and electricity. Let us open our rivers and our lakes to navigation. Let us build harbors, lighthouses, piers, docks, and store-houses. Life is short; let us make the most of it while we live.

Panics will annoy and unsettle affairs, but we must not permit them to drive us to distraction, nor make us miserable. In the worst conditions, there is always more to be thankful for than to regret. Has the machine broken down? Tuggle it up, and use it till it can be repaired. We shall, in time, place our finances on a more permanent basis. In the present emergency, the thing to do is for each one to keep sober, keep cool, and go to work and repair damages. Then, by in-

dustry, economy, temperate habits and application, we shall soon recuperate, and be better off than ever before. Such experiences are necessary for the better wisdom. The world will go on, whether we go with it or not.

PATIENTS AND PHYSICIANS.

SELF-DELUSION is very common among the ignorant; and dishonest doctors are not slow to take advantage of fools and eccentrics, and to prescribe, that they may "run up a bill." The quacks live chiefly on this class of patients. One fancies that his lungs are growing fast to his ribs; that his heart is ossified; or that something or other is "wrong with his inwards." The quack confirms this impression, and doses him accordingly.

There is the inherited weak and feeble condition. The child was born so. Her father was dissipated or diseased, and the mother was weak and "run down" by excessive toil or child-bearing. There was not stock and stamina enough in the parents to give constitution to the child; and the result is, a poor, puny, feeble, sickly thing, not likely to live; or, if it lives, ever to amount to anything. The physicians and sextons have a mortgage on *that* child, and they will soon foreclose.

The next most numerous class of invalids are those who, by indiscretion, fast living, bad habits and neglect of the laws of health, now begin to

"REAP AS THEY HAVE SOWN."

By abstinence, quiet, rest, sleep, repose, fresh air, exercise, faith and hope, they will soon be on their feet again; unless, perchance, some poisoning quack gets hold of the patient, and makes him a one, two, or three years victim, depending on how strong is his constitution, and how deep is his purse.

The most profitable cases for physicians, are the *fashionable* invalids; those who deem it "pretty" to be delicate

always ailing, and who delight in taking medicines "which cannot injure," but "*may do good.*" Having nothing to do, it is rather a luxury to be waited on, to ride out in a carriage, eat and drink only the dainties, and to receive the "sympathies" of friends and neighbors. Besides, one soon comes to look so "*spirituel*," you know. Did not Hannah Moore teach the very unphysiological doctrine, that one comes much nearer to God, when laid low by the chastening hand of Providence? As though God preferred a sick man or woman to a *well* one! These fashionable invalids come, in time, to *hug* their complaints, and will not let them go. They lack courage, pluck, and *will-power* to help themselves. They become bedridden, consumers of cod-liver oil, sarsaparilla, calisaya bitters, beer, bourbon, pills, and, before they finally give up the ghost, they swallow the contents of a drug store, enrich the physician, impoverish their friends, and

"HERE LIES"
Etc.

Now, "*PLUCK*" is just as useful in a sick room as anywhere else. So is faith, hope, and trust. One with these qualities will often overcome a disease, and put to shame the predictions of a weak and timid physician. What can be worse in a sick room than a long-faced, moping, hopeless old cross-bones? With doleful voice, and mouth drawn down at the outer corners, and in measured accents, he says: "This patient is very sick." "He must take the most powerful medicine." "There is much sickness in this neighborhood at present." "There were several funerals last week." "The new burying ground is filling up rapidly." "A mysterious Providence claims many victims among our brightest ornaments." "Our remedies seem impotent to save." "We go by the best authorities." "See, here is what the book says, and we prescribe accordingly." "Give this medicine, in number one, once in twenty-two minutes *exactly.*" "Number two, once

in every three-quarters of an hour." "Let me know in the morning, if the patient grows worse." "Good evening." Exit saddle-bags, with spectacles, cane, and a strong smell of sulphur. Of course, he is "*sent for, early*" in the morning.

Another becomes ill from over work, over eating, exposure, or from self-neglect, and the strong man is prostrate. He, too, by advice of anxious friends, sends for a physician. This M.D., knowing his patient to be a practical, common-sensed person, inquires into the case, and prescribes—"rest," a clean skin, quiet, and a diet suited to the case. He is frankly told that medicines will do no good in *his* case, and none are taken. The patient is carefully nursed, bathed, rubbed and fed. His room is kept well ventilated; he meets cheerful faces; hears cheerful voices;—the children sing, and nurse reads the news to him, and he soon begins to mend; and, in a few days, is on his feet again. He pays the physician for his *advice*, and *not* for poisons.

Another, becoming "*used up,*" sends for a doctor, who prescribes bitter pills; and, not relishing the "*nasty smelling stuff,*" throws it out of the window or into the fire, and so escapes the poison, and gets well in spite of Dr. Cross-Bones. But, refusing to pay the bill, is sued; lawyers employed; suit goes against him with costs for suit; and so he is mulcted out of anywhere from \$50 to \$150, and he *sweats* he will have no more to do with doctors.

These sketches are in accord with individual experiences. We might picture the swindling quack, practicing his wicked arts on "*indiscreet young men,*"—such as are met with in some of the "Anatomical Museums," "Howard Associations," "New York University"—in a stable,—"*Peabody Medical Institute,*" "*Clinton*" ditto, and any number of "*no cure, no pay*" impostors, quacks and vampires, who deserve to be sent to State's Prison. Reader, look out for swindlers. *Know* what you swallow, and do not let quacks practice their frauds or their experiments on you.

AMERICAN INSTITUTE FAIR.

THIS great exhibition is now in full blast, with all its powerful machinery in motion; diamond saws, wood saws, and box saws; looms; printing presses; washing machines; sewing machines—of latest styles; stoves, furnaces, and Boswell's Heaters are there. Shoemakers; tailors; glass blowers; with almost every conceivable household utensil; agricultural implements; fruits, flowers, grains of

every sort, from beyond the Rocky Mountains; with picture gallery; music; the whole lighted up—at night—with a thousand brilliant gas burners. Oh, it is a wonder to young folks, and a study for old folks. One may spend an hour, or a day there—and get his dinner on the premises—and not see it all. New Yorkers make it a point to drop in to hear the music, see the people, and while away evening after evening, more pleasantly than can be done elsewhere.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

WEAK-MINDED CHILDREN.—A correspondent writes us from Pennsylvania as follows:—"I have hesitated some time before feeling justified in taxing your time with a statement of our troubles, and only do so now because of the *urgency* of the case, and because my wife and I, as parents, feel so deep an interest in it. I have taken THE SCIENCE OF HEALTH since December last, and have searched each number, as it came, for something touching the subject of my present inquiry. Though I have seen nothing in it, yet the character of its contents—and of publications I have before seen, issuing from your house—lead me to apply to you as the most likely source of information. Our eldest child, a son, is now five and a-half years of age, and is somewhat—not wholly—deficient in mind; and to have him domiciled where he will be properly taught and treated, and kindly cared for, is our first desire. My wife and I have used every effort to draw out his faculties, and exercise the little intellect he may possess, hoping that in time he would develop, at least, an ordinary mental capacity. We hope and believe so still; but domestic cares are increasing, and the partial withdrawal of his mother's attention and authority makes him more unmanageable, especially as his strength increases. There are times when he seems irresistibly impelled to do serious mischief, such as throwing shoes and clothing on the hot stove; throwing hats, kitchen utensils, etc., down the well; throwing stones through the windows, etc.; and it is during these that he is most difficult of control. These *spells* do not last long, however, and are becoming, we think, less frequent. His body and limbs are well-proportioned and shapely, and his strength is beyond his years; but his head is small, and narrow about the eyes. He cannot talk, except as he tries to imitate his younger brother, now two years of age; but, through sounds and signs, we understand nearly all his wants. From the constant anxiety he occasions his mother, as

also a constant expenditure of her strength in his subjection, we have thought it advisable to, at least, begin our search for a fitting asylum for our little unfortunate. Any information you can furnish will be thankfully received by yours respectfully, X. X. X."

[We omit address, as the letter was not intended for publication; but print it, with answer, that others, in like circumstances, may know what to do. There are, in several of the States, public institutions for the care, treatment, and education of weak-minded or imbecile children—there should be such in all the States. The one in Syracuse, New York, is said to be doing a good work. The one in Barre, Massachusetts, under the management of Dr. Brown, has acquired a favourable reputation. In these institutions, children are classified, trained, and developed on scientific principles. Such as are capable of becoming self-supporting are put in the way of so doing, by those who study each particular case, and devote themselves to their humane work. Where faculties are utterly wanting, of course no degree of training can create them; but where the faculties are but feebly developed, right training will *call out* all there is to be developed. An institution is the only proper place for these unfortunates.]

MICROSCOPES, FOR SCIENTIFIC INVESTIGATIONS.—The following are recommended for professional use: Compound Achromatic Microscopes: "The Popular" Microscope, powers 50 to 200 diameters, \$25 00; "The Student's" Microscope, powers 50 to 400 diameters, \$50; "The Professional" Microscope, powers 50 to 600 diameters, glass revolving stage, etc., \$100; "The Zentmayer Grand American" Microscope, with all the latest improvements, \$200 to \$500 00. Orders for either of these may be sent to this office.

EXPERIENCE.—D. P.—Your second article is mainly devoted to a description of the wet-sheet pack; but as this process, and all other

bathing processes, are fully explained in our late work, "The Bath and its Uses," we do not care to repeat it here. We hope to receive your third article as intimated.

PERVERTED INSTINCT.—SALT.—L. D. R.—"Will you please to say what you consider a perverted instinct to be? Also what is the indirect or remote effect of 'too much salt'?"

1. A disposition to use abnormal things. 2. Premature death.

DIVERS QUESTIONS.—S. W., R. A. P., R. W. S., J. S., and J. R. C.—All of you will find the information you seek in our work on "Digestion and Dyspepsia."

WEANING.—R. M.—It depends entirely on the condition of the mother whether the child should be weaned. We say—No, if the supply of milk is abundant, and the quality good.

LONGEVITY.—E. E. M.—"Is the longevity of the human race increasing or decreasing?"

It is increasing in some places, and decreasing in others.

PUMICE STONE AND THE TEETH.—Is it injurious to use this stone, or charcoal, on the teeth, once a week?

One may use either, if he likes, and no great harm would come of it; but the best thing to use is a narrow teeth-brush, neither too soft nor too hard, with the least bit of fine toilet soap, and a goblet of tepid water. Brush the teeth gently, night and morning, and you will not need any pumice stone, charcoal, nor other preparation.

For teeth-picks, use quills, or wood—not pins, needles, steel-pens, or knives. If your teeth are

decayed, call on a dentist at once. Rotten teeth make bad breath. A clean mouth is necessary to perfect health. See to it.

GASTRIC IRRITATION.—H. A. H. SLEEPLESSNESS.—J. W. SLUGGISHNESS.—R. W.

Each of the above correspondents will find the information he needs in our new work, "Digestion and Dyspepsia."

HEART DISEASE.—A. F.—No one can pronounce authoritatively in such a case without a personal examination. The probability is, however, that it is only functional derangement. Very few of the cases which physicians diagnosticate as organic disease of the heart are really such. A careful study of our work, on "Digestion and Dyspepsia," might enable you to understand your own case.

PARALYZED ARM.—W. B.—The injury may have dislocated the joint; this should be ascertained by a competent surgeon. If there is no dislocation, the patient should go to a health institution, and be under the care of a competent hygienic physician.

PESTILENTIAL PERIOD.—J. J. K.—Dr. Trall has never predicted any "pestilential period about 1880," as many newspapers have asserted. What he said concerning the predictions of others, and of the facts on which their predictions were based, may be seen in the preceding issues of **THE SCIENCE OF HEALTH**. The authorities are named in Dr. Trall's articles.

PROLAPSUS ANI.—S. M. P.—We cannot determine the cause of this ailment of your child, as you say nothing of his habits of living or medicines taken. Cathartic drugs in infancy are common causes.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

A. S. B. writes: "Editor **SCIENCE OF HEALTH**: For eight months past we have been readers of your valuable paper, **THE SCIENCE OF HEALTH**, and for a number of years a student of the hygienic treatment of diseases, through the *Water-Cure Journal*, *Phrenological Journal*, '*Hydropathic Encyclopedia*,' and other works on this subject; and desire to add our testimony to that of others in favor of the system. In the spring of 1865, father settled, with his family, in the miasmatic regions of Southern Illinois, where chills and fever were very common. The first season we escaped it almost entirely; but the second we took it early; and then commenced a course of drug treatment, which extended over several years, of which we desire to speak. From the

time of the first attack, we had the chills almost continuously, with intervals of rest of two, of four weeks at a time. By the advice of friends and physicians we were plentifully supplied with drugs, such as quinine, chinoidine, arsenic, calomel, Smith's tonic, and other preparations of a like character. But they did not break up the disease, and left our constitutions in a very deplorable state. In September, 1867, we removed to Missouri, and settled on the banks of a small creek, a tributary of the Mississippi. In one month we contracted bilious fever, which soon ran into typhoid fever; and scorched with fever, swallowing drugs meanwhile, spent over three months in bed; several weeks of which time were on the verge of the grave. But a kind

Heavenly Father saw fit to spare our lives. We did not recover our health very rapidly; and the following spring, when we began to feel something like our usual selves, experienced another attack of that annoying disease, chills and fever, which we could not *shake off*, nor would it yield to drug treatment all that summer. Growing gloomy, disconsolate, and almost tired of life, at thus constantly shaking with chills and fever, and our consequent worthlessness to our friends, we cast about for something else that promised relief; and coming into possession of a copy of the 'Hydropathic Encyclopedia,' with but little faith in the result, we took cold bath during the height of the fever, as therein directed; and with the second application, the disease was entirely broken up: and from that day to this we have not had another shake. Although being of a bilious temperament, we have had two slight attacks of bilious fever, which have readily yielded to the water-cure treatment. Our general health has been as good as could be expected, after having had our constitutions almost ruined by drugs."

A LONE REFORMER.—L. E. M., writing from Missouri, tells us how much better it is to be right and be singular, than to be wrong with the multitude. He says:—"I have for many years been a lone advocate of health reform in this place, and have kept house eight years without paying a doctor's bill, or expending one cent for medicine. I use no flesh, tea, coffee, alcoholic liquors, beer, nor tobacco. My diet is Graham bread, fruits, and vegetables. I have good health constantly, while all of my neighbours have more or less sickness. Success to your SCIENCE OF HEALTH!"

PHYSICIANS COMING OVER.—"Straws show which way the wind blows." The following explains itself:—"Huntsville, Ala.—To the Editor—Dear Sir: I intend to purchase all of your works, on *Phrenology, Education, Science of Health*, etc., on the strong recommendation of a retired physician, who told me he got disgusted at the trade of licensed poisoning; and that on the hygienic principles, and the preventive system of the hygienic school, rested the only hope of a physical as well as moral regeneration. Would you be so kind to send me a list (and prices) of all your publications and periodicals, and perhaps a sample of THE PHRENOLOGICAL JOURNAL and THE SCIENCE OF HEALTH? Our village does not boast of a news-dealer, or intelligent tradesman of any kind, by whom I could procure the desired books; and I address you directly, in the hope that these lines will reach your place of business, which, I remember, is on the Broadway, N. Y., though I forget the street number. [It is 389 Broadway.] Please address: —, Huntsville, Ala."

It is another most significant fact, that physicians of the "regular" school of medicine, and their families, patronize our "Hygienic Homes," in considerable numbers. Why? Simply because

they like our remedies better than they like drugs. The past season has been the best known, in all our experience, for all of the really well-conducted health-resorts. Another year dozens more first-class places will be required. Now is the time to erect them.

ON Sunday afternoon last, Mrs. Carrie F. Young, M. D.; of California, lectured before the Sunday Afternoon Society at the rooms of the Sons of Temperance. Her address was very pleasing, and gratified her hearers to such an extent that she was invited to again speak in the evening, at the M. E. Church, which she did, attracting an unusually large attendance. By invitation, she lectured at Sandy Hill on Monday evening, and last night spoke on the subject of "social drinking" at the Good Templars' Hall in this village. Mrs. Young is one of the most pleasing and thoughtful of the lady orators of the day and affords a treat to all who may be so fortunate as to listen to her.—*Glen's Fall Messenger.*

[We bespeak a hearing for Mrs. Young, by all who may, while on her visit in the East. She will return ere long to her California home, on the other side of the mountain. She speaks from knowledge and experience and talks thoughts instead of mere words.]

ABOUT DRESS, FOR WOMEN.—A lady correspondent sends us the following note, not intended for publication, which has thoughts in it, and must not be lost. She says:—"That idea about fashion-loving nations being 'progressive' applies as well to Quakers as to Chinese. The Quakers never *originate* anything. They have but one college in this country, and that is only three years old. You never hear of a Quaker distinguished for anything but Quakerism—Lucretia Mott, perhaps, excepted. Living among a progressive people, they are borne along by the tide around them, not by that within them. Philadelphia has at last struck a blow, and got the Centennial; but it is only lately that she has sustained even a regular line of foreign steamships. The chemise-drawers are an excellent institution; and doubtless, if a well-fitting pattern of them were for sale, and their excellencies pointed out, a great many women would buy them. But for most of us, innovations in under-clothes involve so much change in pattern and fitting, that we slip along in the old ruts, rather than put ourselves to inconvenience, for which we should, nevertheless, be amply paid. The whole subject of dress is, and has always been, exceedingly tedious to me; and yet I don't want to be noticeable in any way. When I can afford it, I shall buy everything ready-made, and then never give a moment's thought to my dress, save when propriety requires it. . . . Some years ago Mr. — had his flannel shirts and drawers cut all in one, and liked the arrangement very much. He named the garment Pancheiton, from the Greek, signifying universal covering; and we called it

Panky, for short: but when he went away from home, the gentlemen with whom he sometimes roomed made queer remarks about that 'remarkable nether garment' of his; and after a while, as he bought ready-made under-clothing, he went back to the 'leeks and onions' permanently. [The Scotch have knit garments of this sort, covering the whole person, from neck to feet.] In my heart I always envied the wearers of pantaloons, the perfection of their equipments, and hated the bother of petticoats, as much now as when I was a little girl; and I should rejoice if these flowing skirts could be shortened as to length, and reduced as to dimensions. Indeed, but for the cold, a fig-leaf would suffice. So you see I am radical enough in feeling, though not in principle. It is a good thing that the subject of dress is up. It is a load for us to bear, and one that should be lightened. When women, as a rule, go to college, acquire a thorough education, and are valued for mental qualities and attainments, rather than for physical claims—when they are more the companions, and not so much the toys, of the other sex, we shall see a change, and it is not far in the future."

"WITHOUT PURSE OR SCRIP."—An enthusiastic hygienic co-worker issues the following "card," which explains itself:—"E. J. Chalfant, physiognomist, 240 W. Market St., York, Pa. Three general lessons free to all. Three leading traits of any stranger named as proof of physiognomy. Students advised and assisted free of charge. Private lessons at conscientious prices. Subscriptions to SCIENCE OF HEALTH, \$2.00 a-year. S. R. Wells, 389 Broadway, N. Y., has all books on physiognomy, etc. Busts, skulls, photographs, engravings, gymnastic apparatus, etc., used to explain ideas. The holder of this card is entitled to one general lesson in physiognomy, hygiene, physical culture, etc., on the evening of 187th, at o'clock. No. 1 faces are friendly, honest, reasonable, and rosy. Poisonous weeds, drinks and drugs make ugly faces."

C. H. C. writes from Calf Creek, Ark.:—"I was a subscriber one year (in 1859) to *The Water-Cure Journal*, published by your firm, from which I first learned something of the hygienic system. By the reading of the *Journal* and some of your excellent books; (and about this time, being attacked with a fever, I had an opportunity of testing the water treatment on myself, which I did with satisfactory results,) I soon became a convert to its superior efficacy, in various diseases, over all drug medicaments. Prior to the above date, before ever hearing of water-cure, I invariably resorted, when sick, to drugs, to quinine, to antibilious pills, to blue mass, &c., to right myself. I knew no other way to do to get well: thought I must take something. But now, Mr. Editor, since learning the better way, we never think of swallowing such poisons when ill; but by the use of pure water, and other simple means, as taught in THE SCIENCE OF HEALTH, we have so far, in every instance of sickness in my family, been eminently successful. We have abandoned coffee, condiments (excepting a little salt,) to a considerable degree hog-meat and grease, and find a great improvement health-wise by it."

Hygienic Seasoning.

THE VERB "TO BREAK."

"I begin to understand your language better," said my French friend, Mr. Arcourt, to me; "but your verbs trouble me still, you mix them so with your prepositions."

"I am sorry you find them troublesome," was all I could say.

"I saw our friend, Mrs. Janes, just now," continued he. "She says she intends to break down housekeeping. Am I right there?"

"Break up housekeeping, she must have said."

"O, yes, I remember. Break up housekeeping."

"Why does she do that?" I asked.

"Because her health is so broken into."

"Broken down, you should say."

"Broken down—O, yes. And, indeed, since the smallpox has broken up in your city"—

"Broken out."

"She thinks she will leave it for a few weeks."

"Indeed! And will she close her house?"

"No; she is afraid it will be broken—broken—How do I say that?"

"Broken into."

"Certainly; it is what I meant to say."

"Is her son to be married soon?"

"No; that engagement is broken—broken"—

"Broken off."

"Ah, I had not heard that. She is very sorry about it. Her only son broke the news down to her last week. Am I right? I am so anxious to speak the English well."

"He merely broke the news: no preposition this time."

"It is hard to understand. That young man, her son, is a fine fellow—a breaker, I think."

"A breaker, and a very fine fellow. Good-day."

"So much," thought I, "for the verb 'to break.'"

THE dying words of a Delaware woman were: "Henry, if you marry again, remember that it only takes a cupful of sugar to sweeten a quart of gooseberries."

A GERMAN author, expatiating upon the absurdities of the English pronunciation, thinks it reaches a climax when they pronounce "Boz," Dickens.

A BOZE.—The man who persists in talking about himself, when you wish to talk about yourself.

"HALLO, Bill, where have you been for a week back?"

"I havn't been anywhere for it, and a ain't got a week back, either."

"Happy is the country that has no history," as the schoolboy said on being flogged the third time for not knowing who was Henry VI.'s wife.

A WARM SUGGESTION.—It is suggested that in building railroads, the rails should be heated red-hot, so that the workmen will lay them down rapidly.

LOGIC.—Young Wife (to George, who arrived home in the small hours this morning) "We are one, dear, now that we are married, are we not?" George: "Certainly, my darling. Why?" Young Wife: "Oh, I only wanted to know; because, if we are, I must have been dreadfully inebriated last night."

A LITTLE boy in the country wrote to his mother in the city: The peach trees here are too slippery for me to climb; uncle won't let me sail boats in the milk-pails; there's no bird-nests around, that I can see; Sallie Law split molasses on my best pants; a smaller boy than I am, who plays with me, wears a gold chain; and I want to go home."



No. 18.] New York, Dec., 1873. [Vol. III.

NATURE'S REMEDIAL AGENCIES ARE LIGHT, AIR, TEMPERATURE, ELECTRICITY, DIET,
BATHING, SLEEP, EXERCISE AND REST.

THE POTENTIAL SEX.

BY ALEXANDER WILDER.

"The third wrote, Women are the strongest."—1 Esdras. iv.

WE have often, half in badinage, declared women to be the more robust sex, as exhibiting, in the fashions of clothing, their greater tolerance of exposure to vicissitudes of the weather, and their unwholesome personal habits, a power of endurance far superior to that possessed by men. Of course, it was not admissible to refer to their inferior physical strength, when we had striking examples in other parts of the globe that the fact was otherwise. At Odessa, for instance, the female porters take the burdens which are too heavy for their male associates; and account ought to be made of the achievements of the Bedouin women and American squaws, who support their men by their labor, as the working bees maintain the drones of the swarm. We preferred to cite the use of articles of clothing, "fearfully and wonderfully made," which circumscribe free motion, deep breathing and proper diffusion of warmth; the promenading of the streets insufficiently clad; and the exclusion of sunlight from apartments, lest the noxious dyes of carpets and sofas should be faded instead of the faces of the owners. Men are too feeble to sustain such complications of ills. Corsets, bustles and paper-soled shoes would exterminate them by hecatombs; and in-door life over carpets full of dust, which constantly emit poisonous gas, air and sunshine carefully ex-

cluded, would utterly emasculate them, and hasten them into rapid consumption. Only the sex gifted with superior vital power endures the fearful peril.

What we thus asserted not altogether seriously, we perceive that others have propounded as a scientific fact; and what is more, they prove it. *Feminae pra viris longeviores* is an old saying among physiologists; and a year ago we perceived it affirmed, by a contributor to *Old and New*, that "the female possesses greater vitality than the male." That the contrary view, which has governed the action of Life Insurance Companies, was overdrawn, we have long believed; and we have also regarded much of the talk about the early decay of American women and the deterioration of the North American race upon the Western Continent, as cant. The social practices of many American women—and men, too, as to that—are execrable enough; but they are only the repetition of those which prevail in Calcutta, Chinese cities, and different places in Europe, and were especially conspicuous in the cities of ancient time, that have not transmitted to us an altogether fragrant record. But Nature is full of resources to overcome the ills resulting from infractions of her laws. She seeks perpetuity rather than destruction.

A treatise on longevity appears in the *Medical Record*, from the pen of Dr. John

Stockton Hough, written evidently to influence the future operations of Life Insurance Companies, several of the propositions of which we do not find easy to accept; but the facts cited are conclusive and, we believe, indisputable. He demonstrates, by numerous references, the superior vitality of the female sex, finally declaring that "throughout the world there are millions more females than males, especially among adults. As there are from two to six per cent. more males born than females, yet there are at least six per cent. more females in the living population; and as the population is steadily increasing, it is evident that females are longer-lived than males."

Especially is this true in races other than the Aryan. In Rhode Island, Dr. A. Caswell shows that the average life of colored males dying in that State was 23.13 years, while the females averaged 36.85 years. In Philadelphia, the mortality of the colored males, from 1820 to 1830, was 1 to every 14, and the females 1 to every 22. The relative mortality of the race was double that of the white. The colored population of this country—if not diminishing outright, as it evidently is in Africa—is shorter-lived than the Aryan; a fact owing largely to the presence of the hybrid or mulatto element, which is less fecund and enduring than the unmixed. Yet, out of 3501 persons in this country over a hundred years of age in 1870, there were 642 native whites, 322 foreign born whites, and 2537 colored.

The Jewish race, on the other hand, excel in average longevity. In Polish Prussia they have 119 male to 100 female births; yet in the general population they rate only 96 or 97 males to 100 females. These figures show the Jewish female to be exceptionally long-lived. Judging from what we have read, we presume that the Semitic Arabs, if data could be obtained, would exhibit the same peculiarity.

In Philadelphia, there are but 895 male inhabitants to 1000 females, although 1116 male births occur to every 1000 females. The deaths of males exceed those

of females about eight per cent. yearly. In Providence, for the thirty-one years ending in 1870, the total number of deaths was 30,163, in which the sexes are about equal, although the proportion of the population is but 885 males to every 1000 females. In the entire State of Rhode Island, for the nineteen years ending with 1870, there were 50,906 deaths, of which there were 977 males to every 1000 females, although there were but 93 males to every 100 females in the population. London has an average weekly death-rate of 788.8 males and 737.4 females, while there are but 85 males to 100 females. In the census of 1870, there were 108 males to every 100 females in the population of the United States; and the rate of mortality was 112 males to 100 females. In the countries of Europe which are not greatly influenced by emigration, there is a preponderance of females in the population, though an excess of three per cent. in the male births.

Zymotic diseases are somewhat more fatal to males. Death by violence, intemperance, hydrocephalus, affections of the heart and brain, are far more incident to males. Cancer, consumption, and "general diseases" are more mortal to women.

Of the superior capacity of women to endure pain and privation, there is abundant evidence. Our mothers and wives sustain pangs at which we and our fathers would wince. We are vanquished by toothache and neuralgia; but sound, true-blue women will bear children as an every-day occurrence, and be nobly proud of the achievement. They suffocate less easily, and endure incessant labor and privation of food with greater facility.

Physiologists and philosophers have endeavoured to account for this superior vitality on the ground of a less complete mental and structural development. This is the judgment *ex cathedra*:—"All the latest discoveries and experiments, added to what has hitherto been accepted as true, fully confirm this opinion, which is associated with the names of Aristotle, Humboldt, Henry, Walther, Wagner, Kessler, Tiedeman, and innumerable

other high authorities in all parts of the world, notwithstanding the assertions and allegations of a few uninformed, erratic, Agrippæan philosophers to the contrary. By the man being more highly developed than the woman, we mean that his organs are more highly developed, more elaborated, the tissues more attenuated, more thoroughly evolved from an embryonal condition; while the woman retains in a greater degree the embryonal and infantile rotundity, softness, texture, flexibility, elasticity, size, weight, stature, chemical composition, and physical constitution of her organs, tissues, and fluids."

It does sound queerly that superiority of development involves deficiency in vital power. Certainly the peoples most capable of intellectual growth are longest-lived, and their average vitality appears to increase with their culture. But argument on this point is foreign to the purpose of this article: we are neither ambitious nor jealous in regard to this matter of sexual rank. Nevertheless we are of opinion that some higher principle must be found to account satisfactorily for the superior tenacity of life.

Underlying all the operations of Nature is the dominant idea of utility. When, from any cause, anything ceases to be of use, it is suffered to perish. Which of the sexes is most essential to the economy of life? Most assuredly, the female. Granted that the effort for existence is the first leading principle, it is apparent that preservation of race comes next. Every action—and indeed, the form of every living thing—is connected with one or the other of these purposes. Everything else is subservient to these. In the second essential the agency of the female is the latter in exercise, and, therefore, more important to preserve. Hence it should be, and is, more assiduously shielded from accident and vicissitude.

We notice the analogy to this in the vegetable kingdom. In the hermaphroditic flowers the stamens yield their pollen and drop away. When there are distinct staminate blossoms, they die before the others; the pistils surviving in

some instances for long periods. In dioecious plants, like hemp, the whole male plant dies some weeks before the female. Following the great principle of utility, the male flowers have less vitality, appearing, in the monoeious plants, upon the weakest branches. On the pine-tree the cone is produced only on the ends of the healthiest branches. As soon as these become shaded and weakened, by being outgrown by others, they cease to produce female flowers, and only have male ones. Weak shoots never have any other. The female blossoms occupy the best positions for receiving nourishment, and suffer less from frost and inclement weather. Among insects, the male often perishes or is destroyed by the female, when he has become supernumerary. The female survives to produce and rear the young. The male-deer is shorter-lived than the female. Nature's highest efforts are invariably in the female line.

In the human race, which, we suppose, is of the highest utility, these principles are displayed in greater perfectness. The man, as subservient to the woman, is endowed with his greater strength to protect and provide for her. It is in obedience to this law that the youth adores and consents to serve his mistress. "For this cause shall a man leave father and mother, and shall cleave to his wife." To her he is the sacrifice. Meanwhile, as has been remarked, for the purposes of her existence, she has necessarily the stronger hold upon life. This would seem to be a departure from the analogy of Nature, presuming that she is earlier matured. More male than female offspring are still-born; there are several per cent. more boys born; from birth till twenty years of age, about fifty-four per cent. of the deaths are of males; and although after that period the numerical mortality of women is the greater, it may easily be explained by the fact that they now outnumber the men. What is called "expectation of life" is greater for women. Peril to male life begins with existence, while the greater dangers to the female occur after the child-bearing period is over.

The principle here enunciated involves the connubial relationship as essential to its full operation. Celibacy is a drag upon female vitality. Premature death is induced by it; and such diseases as cancer and consumption are promoted by it to an almost incredible degree. In the city of Philadelphia, in the eleven years extending from 1861 to 1872, there were 100 women dying of cancer to 43 men; and of persons under twenty years of age, but 77 males died of consumption to 100 females. This disease is the most destructive of any to human life; and it is especially so in the Eastern States, where is the greatest excess of female population. In convent life, there are more unhealthy women than men. "Fecundation and pregnancy act as fortifiers in the woman," Burdach asserts; "and the mothers of numerous children are in general the most healthy and live the longest: the sterile woman is more unhappy than the childless man." Dr. J. V. C. Smith also declares that "life is extended by the effects of pregnancy and childbirth." Dr. Houghton suggests that the woman does not grow "physically as well as really old" during pregnancy; and consequently such periods are substantially added to the duration of the life. This may not be, and we think is not the whole truth in the matter; but it is the truth as far as it goes. Men as well as women live longer in connubial life; hence there is a profounder reason.

But if there are millions more females in the world than males, especially among adults, and the disparity in numbers is steadily increasing, as has been asserted, the conclusion will be hard to escape, that at a somewhat remote future period, the male sex will have entirely forsaken this planet, leaving only women. We might then expect the paradox to be realised, that they will agree to one proposition. The assertion of the Quaker woman's sermon would foreshadow their action. "It greatly surpriseth me," said she, "that the young men will go after the young women, when, if they would but remain quietly at home, the young women would come after them." In case

that the men all leave this world, we suspect that the women too would leave, in quest of their mates.

But this corollary, that woman will survive man in the process of final extinction of the human race, is hardly to be apprehended. Two or three "laws of life" are sure to operate to avert such a consummation. For example, the offspring are more likely to inherit the physical characteristics of the mother than of the other parent. It has been shown by biologists that the average of human life is increasing. As women possess the superior vital power, it is fair to suppose that the mothers have been in a great degree influential in effecting this increase. The case of the Jewish women is in point. They are exceptionally long-lived, and to that fact we ought doubtless to impute the superior physical integrity of the Israelitish race. By parity of reasoning, we may insist that varieties of our ethnic stock are and will be favored in like manner; the superior vitality of one sex will enhance that of the other. If disease may be hereditary, so in a greater degree is vitality. If this logic is correct, the masculine division of the human family is not likely to be left unrepresented in the future generations of mankind.

But again: where there is any unduly disproportionate number of males in a population, there is a relative numerical increase of births of children of that sex. The universal tendency is to equilibrium; and to that, under Providence, we may confide the whole matter.

The only question remaining to be solved is the political one. In the history of the world, the races most highly endowed with vitality eventually obtained the mastery over the less-favored, even when conquered by them, as in the case of the Saxons of England, the Gauls of France, the Iberians of Spain, and the dark people of India. Perhaps the female sex, by virtue of superior vitality, may become dominant. We observe sporadic instances, and a little time may render the thing general. The sex which has been declared more "perfect in a developmental or evolutionary point of

view," will do well to build its structures upon carefully-laid foundations. Certainly, in the older world-religions, the "Great Mother" was the type of the race; and the cycle may restore her to supremacy.

THE MEDAL SCHOOL-GIRL OF THE PERIOD.

TO PARENTS AND GUARDIANS.



HOT-HOUSE PLANT WITH MEDALS.—“Can’t come out to play. I have to study my Philosophy and my Greek. I want to keep the Medals.”

OUT-OF-DOOR PLANT WITH HOOP.—“Fiddle! you’ll need your Health soon more than your Philosophy; besides, my Papa says there are too many Greeks in this country now.”

So much from *Harper’s Bazar*. What with our infant day-schools, Sunday-schools, night-schools, and studies at home, the minds of some children are kept constantly on the stretch. They become precocious, commit chapter after chapter in the Bible, and hymn after hymn to memory, reciting the same to astonished fools, who praise the silly mammas and proud papas on account of

the achievements—mental gymnastics—of big-headed and little-bellied boys and girls. “Oh,” said a foolish mother, “my darling Eva never was a child; she was a born young lady! Before she cut her teeth, she could tell all her letters, learn tunes, say pa-pa and ma-ma. Oh, she was so smart! We could wake her up out of a sound sleep any time, and she would ‘perform’ for the entertainment

of neighbors and visitors who called. As she grew from infancy into childhood, she had none of the wild and boisterous ways of street children, but preferred her books. Nor did she care for dolls, or other playthings. Oh, she was such a bright child!"

"Where is she now?" we inquired.

"Dead," was the reply. "She was ill two days, and died of brain fever. The doctor gave her medicine, but it had no effect. The poor, dear child is an angel now! 'The Lord giveth, and the Lord hath taken away.'"

Now, angels are all very well, perhaps, but we like, for our daily associates, "real, live, warm bone and muscle," not a myth. In children, as well as adults, we prefer less brain and more body.

The foregoing is simply the experience of thousands. Precocity in children is to be deplored, not encouraged. A dull, sleepy child, makes the best man. The business of childhood is to grow, rather than shrivel up in school and die. Colts, put into harness, or kept under a saddle before they get their growth, make poor or indifferent horses. Half our college graduates, who smoke tobacco and commit other indiscretions while pursuing their studies, are "shelved," being used up, and good for nothing before reaching thirty years. Would not a little phy-

siological training be more useful than so much Greek, Latin, and rhetoric?

Precocious boys and girls should not be kept in school, but out-of-doors—in the garden, on the farm, in the playground, rolling hoops, flying kites, riding horse, climbing hills—all in moderation—and, if properly fed, clothed, and trained, they will learn enough later in life. They should also sleep abundantly. Children grow most when they sleep best.

If the human race is to be perpetuated, some attention *must* be paid to the laws of health. To become parents of robust children—of children with enough vitality to keep the lamp of life burning into old age—requires "right living" on *their* part. Children are affected by the physical and mental conditions of their parents. Stock here, as elsewhere, is an important consideration. "Blood tells." We may improve or impair the quality of our blood, by the way we live, the habits we form, the pursuits we follow, and by our very thoughts.

But enough. Sensible parents will have sensible, not precocious, children; take proper care of them, raise them, train them, and they will live and perpetuate the family name, and be a blessing to their parents, the State, the nation, and race.

Silly, foolish, fashionable, dissipated, ignorant, and ambitious *pas and mas*, "shall not live out half their days."

WHAT WE WANT NOW.

MOST of us live too much in the past and the future. Too much, because we seldom guide our present time by the experience of the past; nor do we make arrangements for the future, through right use of the present.

An intelligent woman of to-day will do well to reflect that the present month is December, with wants, opportunities and duties peculiar to itself; and will be wise to make provision now, though some of the wisest are undoubtedly already prepared, and in consequence may more thoroughly enjoy this peculiar season.

December may well be named the Home

MONTH, for though during the late Indian Summer of November we all lingered out of doors as often and late as possible, we are now driven in to cluster about the evening lights and the warm fireside (if we fortunately may) and solace ourselves with home comforts and friendships for the lack of balmy air and beaming sunshine. For the days tend to their shortest now, their coldness and darkness are depressing: those of us who exercise but little are apt to feel torpid and half-be numbed. We look out upon the leaden-hued sky in the mornings, and hug the pillow closer as we shut our eyes for one more little nap. Then, having unwillingly

risen, we dread to take the needful, invigorating cold bath; and at the breakfast table we sigh for a cup of fragrant, forbidden hot coffee. Then we fear to venture out in the cold, and finally creep frozenly along half a block to plunge into a crowded street car, where every window is closed and the air steaming with foul breaths. But we cannot avoid getting a few whiffs of wintry air, which so invigorate us that we are able to rush through considerable business, and hurry home at nightfall, eagerly anticipating a comfortable meal, and a pleasant family gathering after it.

At these Home Re-unions we need books, good books: books for the babies, to instruct amusingly; books for the older children, to awaken mental action and satisfy their eager cravings for knowledge; books for the parents—practical books to teach them the science of health and right living—not only how to live themselves, but how to care for and educate those committed to their keeping. And since it is not good for the mind to be dwelling upon grave and abstruse ideas—since recreation and change of thought are very important aids in preserving mental health—we need books of poetry, of art, of romance, the best always of its kind.

On a winter evening no sensible person will object to some nonsense plays and romping. Father, mother, children, and guests (if any are present) all should join; and the liveliest games are best, for the little ones enjoy these most heartily, and the adults will find their circulation improved by the exercise. All will sleep better for it; especially if they leave a crack open at the top of each window, and so breathe pure air while they rest.

Music should invariably close a winter evening at home. And by this I have no thought of meaning that intricate and difficult (and very tedious to listen to) piano-fingering that most young girls are now obliged to spend so many hours daily for years in acquiring—no! no! I mean simple songs and hymns which each member of the family can join in, and which therefore elevate and cheer

their spirits and linger like a lullaby in memory as they sink to sleep.

Now the careful mother, when the others are quiet in their beds, lingers by the fire a little longer, reflecting upon the season and considering if they are prepared to meet its demands. First of all, good food, in quantity more ample than at earlier months, is needed. For warmth is gained in a measure from food, and the most warmth from that diet which keeps the blood in purified vitality. Since we do not live in Greenland, nor on the borders of the Arctic Ocean, we need not drink oil, nor swallow fat meat. Dried beans and peas well cooked are fattening, and therefore heat-producing; eminently so is corn meal mush, and milk; baked apples and cream, with sugar; hot chocolate with boiled eggs and wheat-cakes, *brown*—with maple syrup, will prove a good fortifying breakfast for a cold morning. Don't you believe me? Try it! And would you know how to get up a delicious December supper? Have a great dish-full of rice baked in milk a little sweetened (we used to call it "poor man's pudding,") accompanied by warmed graham biscuits and sweet butter, and some fine chocolate, or cream with two thirds *boiling* water and a little sugar—for drink. Make most of your meal of these and finish off with—ah! a saucer of real apple jelly (old-fashioned kind) with cream poured over it—oh!!—Try it.

Fires to warm our houses are indispensable in December, but they must not burn too fiercely—else we shall find our bodily heat lowered, our skin made too dry and tender, our extremities chilled as the blood presses unduly on the brain. So the good mother will want a thermometer in every room, beside one for the bath tub.

The daily bath must not be neglected in December by either adults or children who would remain in vigorous health and avoid colds, coughs, neuralgias, rheumatism, deafness, and torpidity of the liver, with its long train of contingent diseases. The skin is naturally shrunken by the cold, its pores liable to shirk duty,

and throw too much work upon the other excretory organs of the body: the skin therefore must be kept active by suitable bathing. Only the robust can endure cold baths in winter, all others, especially children, should take them at the same temperature as the body. This is easily arranged by placing the bulb of a thermometer in the armpit a few minutes, then suffering it to cool and regulating the water by it. The room should be comfortably warm. A child will greatly enjoy and be benefited by a bath at this natural temperature, especially if accompanied and followed by gentle friction.

The mother who watches her children will observe that in December they usually are excitable, irritable, feverish-looking and more liable to illness than at most other months. This is because they do not exercise out of doors as much as usual. Mornings are dark and short and they must hasten to school; teachers urge them to extra preparations for exhibitions, etc., at Christmas time, and when study is over for the day, and they languidly leave the overheated schoolroom—they have little time and less in-

clination for outdoor sports. Better keep them out of school during this month, since they want good health more than all else; let them play through the sunny hours, and keep up their studies as well as they can during an hour or two in the morning. They will know more when twenty-one by following this course, than will their mates of the same age who went steadily to school.

Winter clothing should all be ready now. By this I don't mean velvet cloaks and fur with cotton stockings and thin and open sleeves—but *flannel from neck to toes*, and stout, double-soled leather boots, and warm woolen skirts. Velvet if you choose for sunshine, but a thick, rainproof over garment for stormy weather, because no one can keep in good health without a brisk walk nearly every day in December; only the severest storms should keep any one in. Let us live in the *present*; let us rightly use each moment and each hour, garnering up strength and health and wisdom constantly; hoarding these precious stores now, that we may have a full treasury to draw upon when depleting summer days come again.

ELIZABETH DUDLEY.

WOMAN'S DRESS AS RELATED TO FASHION AND HEALTH.

FOR many years there has not been a time so favorable as the present, for sensible women to express their views on the subject of dress in a practical way. Thousands who have felt oppressed, quite beyond endurance, with the tyranny of Fashion, now have an opportunity to lighten the burdens it has imposed. The work of Elizabeth Stuart Phelps, though taking extreme ground, as all works of reform must do, has opened to thoughtful and intelligent women a way out from the entanglements of elaborate and expensive costume. While some will follow her to the utmost, and be ready to carry her suggestions fully into practice, the great majority of women will prefer rather to conform partially to existing modes, than to make spectacles of them-

selves for their neighbors to laugh at, or to array themselves in a style in which they would not recognize their own individualities.

It is a fact that those nations who maintain a perpetual standstill in civilization, have also an unchanging uniformity in dress. This applies as well to provinces in France and other parts of Europe, as to China and Japan. Since this is so, we cannot expect that while changes are constantly going on in every other department of life, the fashions shall remain the same. The discovery of petroleum was the means of introducing a multitude of new tints in our fabrics, tints hitherto unknown; and this is but a type of what has been and will be in numberless other departments. What

we need is, not to repress entirely the tide of Fashion, but to direct it in proper channels and to build breakwaters that will keep it from washing away our substance.

The present style of dress, divested of its superficialities, is not, in the main, unhealthful. The iniquitous fashion of tight-lacing does not obtain now, and the corsets against which physicians and all sensible people used to fulminate, with reason, serve simply the useful purpose of sustaining and distributing the weight of the skirts. Hoops, which were at one time from their immense size a perfect nuisance, are worn small, so that they are very little in the way, and, while rendering a number of skirts unnecessary, thus reducing the weight about the hips, make locomotion easy and untrammeled. There are two things, however, in the present style, which we utterly object to—the bustle or pannier, and the train. The pannier is a sheer deformity—a hump where God made a hollow; and, as if that were not enough, it is worn on the very weakest part of the whole spinal column, just where, when a woman has the back-ache, the pain is severest. We protest, *in toto*, against the pannier as an outrage to taste, an insult to God, and an injury to health. As to the long skirts, they are both filthy and inconvenient. In the country they are worse than an anachronism in history, or a solecism in grammar; but saying that is unnecessary, since country women, as a class, abjure them. Think of taking a morning ramble with two or three yards of calico or camel's hair trailing on the grass behind you!

Common sense carries the day in shoes, since they are thick-soled, low-heeled, and form a complete covering to the foot. Pebble-goat or morocco, and not prunella, is in vogue for the street. But if women knew the comfort there is in a real nice pair of French calfskin shoes made to order, they would not deny themselves the luxury. If before the shoes are put on they are thoroughly saturated with linseed oil, they can be worn in the wet without rubbers and yet keep the

feet dry. We shall rejoice when they come into general use for outdoor wear.

As to the dress, there Fashion is tyrannical. Puffs, ruffles, folds, flounces, every variety of tortuous and agonizing flummery is in vogue. Fashionable poor women, who make their own dresses, kill themselves at the sewing machine with endless and unnecessary stitching, and fashionable rich ones encourage them in doing it, and moreover drag their own lives out, in wearing what poor sewing women have ruined their health to make. Every woman who reads this knows that this is not an exaggeration. Let us reduce it to figures. A plain skirt lined for winter wear can easily be made in an afternoon; it weighs about two pounds. The same material, faced but with the fashionable flounces and trimmings, will weigh at least twice as much, and take four times as long to make it. If the skirt is elaborately trimmed, the polonaise or basque must of course correspond. There is another two days' work on that, four days for the whole dress! Meantime, in almost exact ratio, as more goes on the outside, less goes in, and a gentleman of sense, standing on Broadway, as this walking millinery sails by, says with reason: "There goes a fool, she doesn't know anything; there goes another, she doesn't know anything either."

Now, if a woman has money to spend, and must put it in her clothes, why not lay it out in quality of goods rather than in quantity, and have the time thus saved to devote to nobler things? It sickens one to see the profusion of work that is put on cheap material, and the dowdy, shabby-genteel air of many ladies beruffled to-death in 30 cent goods! Infinitely preferable for common wear, a genuine French calico, neatly fitting, tastefully made, and becoming in color; much more healthful, too, since it can be cleansed and look, when quite worn out, still new and fresh. Far be it from us to underestimate the importance of tasteful and beautiful apparel, but we would have the taste and the beauty displayed in the quality, style and cut of the goods,

rather than the abundance of its ornamentation. Let the silk be of the finest, but plainly made, the lace genuine and the diamonds likewise, and let intelligence sit enthroned on the brow, and shine in the eye. As to the hair and the hat, there certainly is need of reform. Not less than \$20 will buy hair enough to make even a modest tournure, and the hat may cost anywhere from \$10 to \$75, but women of taste and independence spend far less than these extravagant sums and look very well too.

Much less attention is given to the correspondence between dress and character, than its importance deserves. A plain simple-hearted woman, rigged out in fashionable toggery, looks like Joe Gargery in his Sunday clothes, most awkward and uncomfortable. As though one should transplant a cabbage from its garden bed into a porcelain vase and set it on the front-gallery, or place a cheap print in an elegant gilt-frame. The effect is simply grotesque. Better it is that one should think the frame not worthy of the picture, than the picture unworthy the frame. Pursuing this vein, we will only add that those who are conscious of being superficial and empty in head and character, are appropriately dressed in imitation lace, glass diamonds, and cheap goods elaborately trimmed, while those conscious of interior worth, cultivated taste and independence of character, will look well in *any* fabric, that does not belie its appearance, whether it be calico or velvet.

As to its influence on health, dress is scarcely less in importance than diet. No class of people enjoy better health than do physicians, notwithstanding their exposures and irregularities, and none pay so much regard to the suitable protection of the body from cold and damp. Flannel worn next the skin is the best covering one can possibly have. Many people think they cannot wear it, from the irritation it produces. But if they would persevere, the difficulties would vanish. Let old flannel, or such as has been repeatedly washed and scalded so thoroughly, that not a particle of

soap remains in the fabric, be first worn during the day. At night let it be removed, the skin be chafed with a crash towel, and the flannel left to air during sleep. In a short time, the skin adjusts itself to its new covering, and ceases remonstrance.

As the weather changes, let the thickness of the flannel change. The Chinese are more sensible than we are in this respect. "It is three jackets cold" say they, when that number of garments is required to keep them comfortable. If one flannel shirt isn't enough, it is better to wear two, than to shiver, or to wrap one's self in a shawl. Dio Lewis says every woman ought to wear three pairs of drawers, the inner pair of woolen flannel, the second of canton flannel, and the outside of muslin. If this number is worn, their weight should be sustained by being buttoned to a waist, and not by merely fastening them above the hips. With a double suit of flannel, many skirts are unnecessary for warmth, and if the lower extremities are encased in woolen stockings and thick shoes, they should not suffer. There are those who adjust their clothing by a thermometer. When the mercury stands at 20° they wear just so many pounds as they have found will retain the bodily heat, adding more as the mercury falls, and removing garment after garment, or changing thick for thin, as it rises. This may seem a troublesome way of arriving at the amount of clothing one should wear, but it is thoroughly accurate and sensible. The enjoyment of perfect health is not attained without painstaking in dress, as well as in diet and exercise.

There is one point not always sufficiently considered by women, and that is the distribution of the weight of their clothing. Three pairs of drawers, a flannel skirt, a set of hoops, a muslin or Balmoral skirt, and the skirt of the dress, are often made to depend for support entirely upon the hips. There are few of us who have not suffered much inconvenience, especially in walking, from the excess of weight applied at this part of the body. To remedy it the simplest means would

be to button the flannel skirt to a waist, with shoulder straps, and then the chief part of the weight of the outer skirts would be borne by the shoulders. When skirts of dresses were sewn to the waists, as was the fashion a few years since, the weight of the clothing was much more evenly distributed, but the use of underwaists will give us that advantage even with the present fashion.

The number is very large of women who dress to suit their own ideas as to taste, health and expenditure. And the present is an excellent time for all to join their ranks who have hitherto been deterred from doing so by a fear of making themselves conspicuous. With no gift of second sight, we can yet see clearly, that to be *sensible* in dress, is about to be *fashionable*. L. E. LYMAN.

DISEASE AND ITS TREATMENT.—No. 9.

BY ROBERT WALTER, M.D.

How Diseases are Cured.

We would not for a moment dispute the testimony of medical men that medicines cure *disease*. To do so would be to dispute the evidence of our own senses. We have seen them cured in this way very many times. And we affirm, too, that medicines used by the heroic practitioners, such as calomel, corrosive sublimate, arsenic, quinine, strychnine, nitric acid, muriatic acid, sulphuric acid, opium, and the other more violent and corrosive poisons, in the larger quantities, are the most effective agents that can be employed for this purpose.

We make this statement because experience has proved its truth, not only, but because the fact is demonstrable on general principles. *Medicines do cure diseases*, no matter who says to the contrary. It is their nature to do so. Disease, as we have shown, is an effort of the vital powers to remove obstructions, repair damages, or defend themselves against injury; and, of course, all that is necessary, in order to cure the disease, is to sufficiently reduce the vital powers of the patient as a whole, or in the part affected. Thus local diseases are treated largely by counter-irritation; that is to say, a person suffering at a particular point, has the disease greatly mitigated or cured by the production of a greater injury at a contiguous point. This is reasonable. The same vitality cannot be employed in two places at the same time. If a general sends part of his army to repair a fort in his front, he will soon be compelled to

cease that work if a more serious attack is made in the rear. Thus we see the *rationale* of cupping, blistering, scarifying, mustard poultices, etc.

But general diseases are not susceptible of counter-irritation, and hence the whole vitality must be reduced. Bleeding has always been an effectual method of doing this; and no physician, who confines his observations to the effects on the disease, disputes its great value. As a cure for inflammation, fever, etc., it is hardly surpassed by mercury. It is true, nevertheless, that many physicians, having gone beyond the disease to the patient in their observations, have spoken against these remedies, because of the danger to the patient's life resulting from their use. We would simply say, that the question of their employment is absolutely resolved into the other question, whether we desire to *cure the patient*, or to *cure the disease*.

That this is the approved mode of curing disease, viz.: the abstraction or exhaustion of the vitality of the patient, is proved by many considerations: First, medical men virtually admit its propriety. Dr. Hall, of Hall's "Journal of Health," says in his "Health by Good Living," page 31:

"Medicine, even the mildest, is essentially a poison, and effects a desired result in proportion to its poisonous quality. It cures by setting up a disease greater than the original one which it seeks to cure."

But, perhaps, he is not authority. Here

is Prof. Alonzo Clark, M.D., of the New York College of Physicians and Surgeons, who says:

"All our curative agents are poisons, and, as a consequence, every dose diminishes the vitality of the patient." And says Prof. John S. Draper, of the New York University Medical School:

"The system is weakened just so much as it has lost its vitality."

Thus we have a clear indication of the allopathic idea of curing disease by destroying, in greater or less degree, the vitality of the patient. If this idea be true, the stronger the poison the better the medicine; because the sooner the vitality is exhausted, the sooner the disease will be cured.

And this is just what the facts show. Prof. Martyn Payne, M.D., LL.D., a standard and orthodox medical author, says, in his great work, entitled "Medical Institutes:"

"Our strongest poisons are our best remedies; they operate in the same manner as do the remote causes of disease; we do but cure one disease by producing another."

Thus we readily see why it is that the profession is so loth to give up mercury, and why it is that they employ as their standard medicines arsenic, strychnine, quinine, opium, alcohol, ether, nitric, muriatic, and sulphuric acids, antimony, tartar emetic, etc. They would just as soon employ the harmless drug, but it would have no effect on the disease. Only those that will destroy the vitality will cure the disease, according to the allopathic plan.

From these ideas the reader will clearly perceive the immense difference between *curing a disease, and curing the patient afflicted with the disease*. Thus he may see how it is that medical men cure diseases every day, while, nevertheless, sick people are as plentiful as ever, and die by the millions every year. One-half the human race in civilized countries die before they reach twenty years of age, and at least ninety-five per cent. of them drop out of existence while swallowing these very medicines that honorable and intel-

ligent physicians declare, in opposition to all reason and common sense, to be curatives. There is a woeful contradiction here. The facts of life utterly oppose the declarations of physicians.

And physicians are not less mystified with the results than other people. If any one will read the medical journals, he will see reports of cases innumerable, where the physician describes the treatment, notes the marked benefit resulting therefrom, *records the death of the patient*, and is greatly encouraged in favor of his medicines. We were reading a few days ago, in a New York medical journal, reports of five cases of strangulated inguinal hernia, and the treatment employed. Three of the patients were bled largely, and other powerful remedies administered, and *two of them died*. No mention of bleeding was made in the other two cases, who both recovered. Yet, this doctor winds up his communication with a dissertation on the great value of bleeding in such cases. One would think, from the report, that death was the desirable thing, for it succeeded; but the truth is, medical men do not measure the value of their treatment by the results to the patient, but by its immediate effect on the symptoms of the disease. All their efforts are directed to the curing of the disease, supposing, of course, that health to the patient will follow.

This is just where medical science, so-called, has stumbled. Diseases ought not to be cured, except by removing the proximate causes thereof, when they will cease of themselves, and the patient will be well. Diseases are themselves curative processes, and all that should be done for them is to furnish the organism with such things as it can use under the circumstances—nurse the patient, and let him get well.

Curing disease by adding to its causes, instead of removing them, as Dr. Martyn Payne says is the true way, is just like curing a noisy and quarrelsome man by giving him more liquor. He is quarrelsome because he is drunk; we double his doses, and he is soon as quiet as a lamb and stupid as a log. The disease (quar-

relsomeness) is cured, but the man never. Just so thousands of men have been cured of fevers, inflammations, etc., and ruined thereby for life.

The motto adopted by the allopathic school is *contraria contrariis curantur*—contraries cure opposites; that is, the original disease is cured by the production of a drug disease as different from it as possible. The late Emperor Napoleon III. has always been credited with the application of this principle to government. Unhappy France, suffering from all the ills of usurpation and robbery, must be doctored; and for this purpose foreign war is inaugurated. While the people are suffering from the dreadful effects of this stimulant, the original disease is hidden; but the fearful day of reckoning must come at last, and the politic doctor steps from the Tuilleries to Chiselhurst, from Sedan to merited disgrace and oblivion.

The Homœopathic school of medicine has a different motto, but examination will show that neither the practice nor the theory is greatly varied. *Similia similibus curantur*—like cures similar, expresses its idea. An exact illustration of this principle once occurred in a horse of mine. Becoming ring-boned in one hind leg, he was so lame as to be unfit for use; but soon, another ring-bone, appearing on the opposite leg, made him equally a sufferer there, and thus counterbalancing the other, he ceased to limp. The horse was cured of his lameness by adding to its causes, just as millions of sick people are cured. How much better off they are the reader may decide.

A neighbor, perceiving the valuable results of *similia similibus curantur* on my horse, tried it on his. Taking a sharp piece of hard wood, he pressed it between the shoe and the tender heel of the opposite foot to the one lame, and the horse, suffering equally in each foot, ceased to limp. "Eureka!" he exclaimed; "hereafter I am a dealer in, and doctor of, lame horses." And he practiced *similia similibus curantur*, or *contraria contrariis curantur*, as the reader chooses, to great profit.

THE FRUITS OF NORTH CAROLINA.

AMONG the fruits pre-eminently agreeable and peculiarly associated with Carolina, if not exactly indigenous, is the Huckleberry. It is a small succulent berry growing in clusters on bushes in wet places in the woods, along "branches," as they call brooks in Carolina; the white flowers of which beautify the woods in early spring, its green leaves and delicate snowy sprays combining charmingly with blue violets in bloom at the same time. It is remarkably wholesome fruit, particularly when eaten by the boys and girls who go "huckleberrying" in June. Never was known to hurt one. It makes a delicious dish of "ambrosia," after Julia Colman's blackberry recipe, serves up well with sugar and cream, but really needs no adjuncts, being very good by itself. It dries splendidly, retaining nearly all its flavor, and cans well. We have one of the finest peaches in the world in North Carolina—the Thomas Peach, a white clingstone, with a blush on one side. In August Seckel pears ripen, small green-looking things; but ahead even of the Bartlett in exquisite delicacy of flavor.

We have "orange watermelons," in North Carolina, from the fourth of July till October, the nicest things; the pulp separates from the rind like that of an orange, and is crisply delicious. Then we have two crops of the purple Carolina Fig, one coming in July, the other in September; very nice, dried or preserved. I have dried them by simply sunning them unpeeled; they are nicer though dipped in boiling syrup, (a pint of sugar to a quart of water,) before sunning.

Scuppernong grapes are another specialty, being indigenous to North Carolina, were first discovered and luxuriated on, by Sir Walter Raleigh's colonists under Lane, on Roanoke Island, in 1585. The original vine is still living, covering now nine acres. Scuppernong do best on a sandy soil, planted where they can run on trees. The grapes turn gradually from white to brown, as they attain to

perfect ripeness. The Isabella, so popular in New York, is a native of North Carolina, being a hybrid between the Burgundy, brought here by the Huguenots, and the native Fox grape. It was carried to New York by Mrs. Isabella Gibbs.

Lastly, after frost falls, and all other fruits are out of season, North Carolina rejoices in her Persimmons, or "meddlers," as they are sometimes called. If you get hold of one not fully ripe, you

may, with the Irishman, anathematize the fellow "what poured vinegar over dese plums;" but go to the tree with the "possums," some morning after a killing frost, and let the bursting pomes melt in your mouth, and you will think them better than sugared almonds. They are susceptible of preparation, that with far less seasoning, makes a Christmas dessert superior to famous New England pumpkin pies.

VIRGINIA DU RANT COVINGTON.

CONCEITS OF CONVALESCENCE.

BY HOWARD GLYNDON.

IT is harder to get up than it is to get down. What a tendency there is to stay in bed after we once get there! How manifold the efforts, how disheartening the weakness which attends our first efforts to get upon our feet again. I know all about it, for I have just tried it, and I think it is far more trying, to convalesce gracefully, than it is to be sick gracefully.

As long as I was actively sick I just lay still—the patient prisoner of pain. The whole day succeeding that sharp struggle of an hour, during which I was dragged very close to the edge of that river over which there is no re-ferriage, was one of intense thankfulness to me. I had fought the battle and had conquered. It was a pure joy just not to suffer any active pain. What were a few wandering darts—a soreness that forbade me to move a muscle—to the hell of torture in which my whole physical being had been previously seethed? It was blissful to be so weak, that I simply existed. I liked to think that the sun was shining just outside the closed blind, though my eyes were too weak to bear it. I liked to think that the world was just bursting into the bloom of June, and that there were half-blown buds of bright red upon the rose-bushes. I could almost smell the clover in meadows a hundred miles away; and see the daisies tremble in the wind; and when I opened my eyes once, languidly, as the breeze brought a sudden

waft of real perfume across my face, I discovered the germ of all these out-of-town fancies in a single spray of the Valley Lily set carefully apart in a tiny vase upon the window ledge. I kept my eyes open for a little while, lazily noting each article of furniture in the room. Every thing looked as refreshingly new to me as if it had been away for a month and had just come back. And the kind faces that looked in from time to time also looked new—transfigured by that same kindness, maybe. It was just as if I had come from a long journey and was being welcomed back. Then I remembered that for a time there had been some question as to whether I would not go on a long journey, and never come back again. "It is sweet to live," I thought; and with that thought my eyes closed of themselves, and I slept long and soundly.

And I maintain that when you have just escaped from the clutches of pain, it is not very hard to lie still and be waited on. Everybody wants to do something for you. That is nice. You only have to lie still, sleep all you can, and submit to be daintily fed and taken care of, with no thought for the future. But just wait till you make an effort to burst the bonds of invalidism and to prove that you are worthy to be promoted to the grade of convalescent! Wait till you begin to try to think and do for yourself! Straightway, the saint becomes a sinner. You are a very meek-looking martyr, ly-

ing among the pillows in all the state of soft white muslin; with pale, folded hands and serene face. But now you have got to try to get up. When you first try you think you never shall; and then you don't know where anything is: it is always so when other hands than the owner's have much to do with hair brushes, slippers, towels and clean linen. To other eyes things may seem in their places, but *you* know that there isn't a single article where *you* have been accustomed to lay your hand on it. Your lately serene visage is drawn and fretful. This coming back to the world is through a way full of prickles. The rose of returning health is set about with thorns, and they sting you—in fact you find it much harder to get well than it is to be sick!

You are tired before you have done more than sit up. How disgusted you feel with clothing! You don't want to see your own sallow, sunken visage in the glass. It is a trial to get your hair into respectable condition. You are glad enough to creep into the first loose garment that is suggested; and then, thoroughly vanquished, you allow yourself to be led to the sofa and comfortably tucked up there. Ah, me! this is the end of all your vaunted independence! And didn't you say, the first thing in the morning: "Oh, I feel quite well and strong now—I shall be glad to get up!" And then the first getting down stairs to your meals! How uncomfortably shaky your knees are! Then you want everything that you are forbidden to eat, and care for nothing that you are allowed to have. You say: "Now I will do this, or I will do that;" but, somehow, this or that does not get done. There is an ineffectual effort and then a retreat to the sofa. Trembling hands and a dizzy head are sad obstacles in the way of anything practical. In the end you begin to fume and fret over your inability to do anything. I did when I found that I couldn't sit up without having headache or backache. I got laughed at for it. "I am glad to hear you complaining," said a friend. "It is always a good sign; make all the noise you can." For my part, when I had lain around the

house for a few days, humoring myself, and hoping always to "be better to-morrow," I became desperate. I did not want to be taken care of any more—not to be taken out to drive, or taken down to dinner, or tucked up on the lounge. I hated myself for not being able to do without these services, yet I could not break the bonds that bound me. One morning I got up and said: "Nobody shall do a thing for me to-day. I am not sick now; I am only weak and purposeless. I've got to exert my own will, and until I do, I shall not get any stronger. So, in feebleness and faintness, I dressed myself and went out alone. The very effort at independence helped me. There was no arm to lean on, so I had to brace myself up. I took the first street car that came along, and went as far as it went. Pretty soon I began to feel interested in watching what was going on around me. All was so new, after a long isolation in quiet, darkened rooms. It was a bright, warm morning, and the car went through a beautiful suburban neighborhood. I quite forgot that there was anything the matter with me in looking at the green waves of verdure in the distance. There were clumps of trees and fields white with daisies, and lovely garden plots before lovely rustic homes. Surely this was better than lying on a sofa in a dark room, fretful and useless, fit only to nurse my pains.

I came back so weary that I could hardly walk the few steps from the car to the door; but also refreshed and with a better noonday appetite than I had felt since getting up.

It was done. By one decided effort I had regained an independent individuality. Days of weakness must still follow; but I had proved that I was able to "gang my ain gait." As soon as you are able to do that you get well rapidly.

Sickness is a virtual surrender of individuality; but what a beautiful instinctive trait of human nature it is, which causes the strong and the well to give way to every whim of the invalid, who has no longer any power to enforce a preference, but whose will—if he have

any—is regarded a hundred fold more, now that he is helpless, than it was when he had strength to command! We will try to find out what a sick person wants, though we may be indifferent to his wishes in health. He abdicates, virtually; but we insist on keeping him in power, of our own good wills!—*Christian Union.*

[This is a mirror, in which many in-

valids may see themselves as others see them. Resolution and will are quite as essential to the invalid, who would recover, as to the aspirant for fame or fortune. Self-help is indispensable, as well to the patient, as to

“One who by the plough would thrive:
Himself must either hold or drive.”]

T W O L E S S O N S !

BY ROBERT WALTER, M. D.

Lesson No. 1: the Cholera at Millersburg, Ky.—The people are frightened: they are panic-stricken! The news is telegraphed to all parts of the country. The people fled here, there and elsewhere. A great fair is being held at Paris, a few miles distant, and thousands of people are there assembled. The news reaches them, coupled with rumors that one had died of cholera in Paris. They mount their horses and flee, not stopping even to call for the purchases they have made at the stores. The managers of the fair hold a council, and decide to postpone further exhibition till a more convenient season.

Would it be wonderful if the cholera had “seized” this panic-stricken people and laid them low? Who does not know of the remarkably debilitating effects of fright? From this cause men have been known to grow grey-headed in a single night. Who has not heard of the convict who died of fright, because he imagined he was being bled to death? So, too, the Glasgow students frightened a strong, vigorous coal-heaver into a sickness that terminated fatally, simply by persistently telling him that he was surely sick.

How exhausting the excitement must have been, whether from fright or not, any close observer will readily appreciate. In such times, the vital energies are taxed to the utmost; and if they are already depreciated by bad habits of life, they soon succumb under the extra pressure, and serious sickness very likely follows.

And yet it is not to be wondered at that people should be frightened at wit-

nessing or hearing of such ravages of cholera in a small town. When thirty or forty die daily in a small place, whose usual mortality is not one, we can readily perceive that there is cause for alarm, and especially to those who are ignorant of the nature of the disease. These persons conjure up to themselves some hideous monster; they imagine him dancing around, peeping into their windows, slipping in at the doors, and ready to pounce upon them at any moment.

And they are entirely unarmed. There is no protection afforded them by the means which they have heretofore trusted. The staff is broken, the panaceas are powerless, and there is no shelter to cover their defenceless heads.

But the storm at length blows over, and there are some men wise enough to look for the causes of the disaster. Paris was not afflicted, only one or two cases, who had fled from Millersburg, dying there. A closer examination revealed the fact, that the cholera was confined to one part of the town, and chiefly among the negroes. The editors and reporters took up the subject, and discussed it from a common-sense point of view. These persons belong generally to the intelligent class who have outgrown the superstitious fancy that cholera, or any other disease, is “a mysterious dispensation of Providence,” not having a physical origin. There must be causes for the present condition of things, they say; and a close examination reveals the fact, that on one side of the town is a bog with much stagnant water; close by

is a rickety old mill-dam, and, in addition, much filth from decaying substances of various kinds. During the whole time of the epidemic, the wind blew from this point directly on to the part of the town that was afflicted, while the healthy part did not get the effluvia from these bogs.

Thus they reasoned with regard to the causes of the cholera. They should have gone a step further. The disease was confined almost entirely to the blacks; the whites, if attacked at all, usually recovering. The negroes lived in huts, barns, stables; they ate such food as they could catch, usually bacon and hominy; their habits were filthy. When attacked, they lay around on the ground; and when ordered to go home, declared they had no place to go to. They were, indeed, naturally as reckless in their habits as ignorance could make them, or as loss of self-respect, caused by having been bought and sold as chattels, could engender. The whites were more intelligent; their habits were less gross; and hence they were exempt from the scourge. In the cases of the few whites who did succumb, there will be found good reasons in their habits of life, or their peculiar surroundings.

Lesson No. 1, therefore, shows that there is a cause for the cholera, and that the effect is only to be removed by removing the cause.

Lesson No. 2: Yellow Fever at Shreveport, La.—Another panic!—the people flying in all directions! The proportion of deaths in the whole population, if occurring in New Orleans in the same ratio, would be one thousand per day; if occurring in New York, would be four thousand per day. This time it is not among the negroes and the poor chiefly; but merchants, lawyers, doctors, army officers, etc., are the victims. The exciting causes, therefore, are, this time, not in the particular habits of any class of people over another, but they are evidently general. The unsophisticated, unprofessional reporter and editor are again at work, playing havoc with popular superstitions. We quote as follows:

"ORIGIN OF THE PESTILENCE."

"The laws of nature and the laws of hygiene have both been outraged in Shreveport, and the people of that unfortunate place are paying the penalty. We had previously heard that the town was in a horribly filthy condition. We had been told that the bodies of putrid animals were to be seen sweltering in the sun in different portions of the city, while mudholes, reeking with filth and miasmatic vapors, were poisoning the entire atmosphere in every direction; but our information, derived from a gentleman of character, betrays a state of facts that is absolutely appalling, and, if not properly vouched for, would be received with incredulity.

"We are informed that a boat, having on board a hundred or more Texas cattle, was recently sunk in Red River, very near to Shreveport. Inexplicable and incredible as the statement may seem, we are informed that these dead animals have been fished from the wreck and taken ashore for their hides; and that, after being skinned, the bloated bodies have been permitted to remain exposed to the rays of a burning sun, where they have sweltered, and poisoned, with the sickening effluvia arising from these decaying carcasses, the whole atmosphere! Is it astonishing, or rather is it not perfectly natural, that such a violation of the laws of health should be followed by a frightful epidemic? The wonder is that the population of Shreveport has not already been decimated by the ravages of malignant typhus fever, or some other equally deadly and malignant disease."—*Vicksburg Herald*.

Aye, here is the story—truly told, no doubt. There is a cause for the fever—a real, tangible, evident cause, that was entirely within the control of the people. The mystery is exploded; the handwriting on the wall is clearly discernible; the decree has gone forth—there is a cause for everything, and every effect corresponds precisely to its cause. The laws of nature have been outraged; but the justice of the Omnipotent has been vindicated. Thanks to a free press for making us thus intelligent on this subject.

It is said there are two sides to every question; so we will proceed to give the other side. As a people we were just waking up, and asking ourselves as to conditions of our sewers, privies, barn-yards, and making faltering promises that we would clean up and purify our surroundings; but the inevitable soporific comes smoothly over the telegraph wires, and once more we snooze in satisfaction,

if not safety. We breathe freer; for a bevy of doctors have assembled in solemn conclave, to deliberate on the origin of the pestilence; and now, with profound sagacity, they make the very satisfactory announcement, that "they have evidence showing beyond question that the disease was imported from Cuba."

"What did I understand you to say was imported from Cuba, Mr. Doctor?"

"The disease."

"What is the disease?"

"Yellow fever."

"What is yellow fever?"

"Disease."

"Where did it come from?"

"Cuba."

"And how did it get to Cuba?"

"Oh! now, that is all nonsense, talking that way."

"Will you tell me what sort of a thing it is that was imported from Cuba?"

"Why, yellow fever, of course."

"Well, what is yellow fever?"

"Oh! now, that is unreasonable: that is going into the essential nature of disease, and we don't pretend to know anything about it. The nature of disease is not understood."

"Is that the reason why you succeed so poorly in treating it? I knew a man once who undertook to hunt deer. He wounded the first deer he shot at, and then boldly launched forward to capture the very innocent-looking animal. He caught a Tartar. The deer was ferocious.

He kicked and scratched, tore his coat, and left him minus a pants' leg, and in its place some very ugly wounds on body and limbs. You see he didn't understand the *nature* of the deer, and so got into trouble."

To say that yellow fever was imported from Cuba is absurd, even to puerility. Yellow fever is not a *thing*. It has no tangible existence. It can neither be transferred from one person to another, nor from one place to another. *It is simply the action of the vital system in an endeavor to cast out from itself poison that has been introduced through lungs, skin, stomach, or that has been generated in the system because of bad habits, want of cleanliness and the like.*

The causes of the Shreveport fever existed, first, in the air, water or food of Shreveport; secondly, they existed in the foul conditions of blood of the people, or some of them, consequent on the use of the air, water or food; and all that importation from Cuba could possibly have done was to bring "a little leaven to leaven the whole lump." An infected vessel might have brought the *exciting cause* of the fever, but the fever never; and the exciting cause would have fallen harmless to the ground, if the soil had not been well prepared for its nurture.

Let us suggest that a little study, after the inductive, or *a posteriori* method, of the essential nature of disease, would save us from very silly fulminations.

WALKING AS A MEDICINE.

BY ELIZABETH DUDLEY.

"WHEN I am ailing in any way"—said a lady of seventy-two years—"when my head aches, or I feel lame and stiff about the joints from rainy weather, or dyspeptic from eating too much, or gloomy because of my lonely life, I go out for a long, brisk walk: that cures me, walking is my medicine."

"But, suppose the weather is too bad for walking? Would not a ride do as well?"

"No weather that a valuable horse is

ever exposed to, is too violent for me. And I fancy that I can get more exercise, and nearly as much fresh air, to stay indoors and sweep, with all the windows open, as to ride even in an open carriage. Your closed carriages, on elliptic, give no exercise at all!"

This lady lives in the city, where she has spent most of her life, since she first came, a rosy-cheeked young wife of twenty, to keep house here, after having been reared on a farm. She is the mother

of twelve handsome, intelligent, healthy children, nearly all of whom escaped the effects of the indiscriminate, idiotic drug-dosing so prevalent thirty and forty years ago—nearly all of whom are now living, and occupying honorable positions in business and society. For mental and physical stamina these children bid fair to equal their parents; and no one who sees them assembled together in family reunions, with their healthy and intelligent little ones grouped around them, can believe in either of three favorite theories of to-day.

One of these theories is: that "old blood dies out." But this family represents the concentrated union of several old families, some of the names being very familiar to the student of English history.

Another theory is: that "the American nation is dying out." But this family is peculiarly American; for not only did their ancestors settle in New York State while it was still a colony of Great Britain, but all of their grandfathers who were living at that time "fit in the Revolution!" (and on the American side too!)

Another theory is: that "you can tell the descendants of an old family by their lack of beauty." Now, the very homeliest one of these twelve children—the black sheep of the flock—is often called a handsome woman, and her face is the worst of her. They all are well formed, without the slightest approach to deformities of any kind, or even leanness or fatness: and every one of them was reared in the city, getting into the country only as an occasional treat, and as likely to go there in winter as in summer time.

I cite this family so minutely to show that they have not enjoyed unusual advantages; and that every person (of means above destitution) in the city may cultivate and keep themselves and their children in that high perfection of health which this family enjoys.

When I look at that lady of seventy-two—whom I dare not call *old*, because the term would seem so misapplied—and think of the sickly, "miserable, un-

happy" girls all about me—morbid and silly, useless to others and a burden to themselves—I cannot believe they are willing to remain as they are; but that, if they knew how, they would gladly be as handsome and brisk and useful and admired as this lady whom I have described.

There is one inducement for them to take her as a pattern—she has always been a belle! Not merely her refined, courtly manners, and her intelligent conversation—but her physical beauty also, has won her scores of admirers since her childhood; and more than one noble man has suffered a heart-ache because he had seen and been captivated by her before he learned that she was a wife! Girls are apt to think that *youth* possesses greater attractions for the masculine sex than any other charm; but when they are as old as I am they will change this opinion.

If, then, a woman may be charming at any time of life—even at seventy-two—there is surely no need for any one to marry in haste—to marry before she has had time to so thoroughly establish good health that even child-bearing, and hard work for a large family, will not break her down. Neither need she accept the first man who offers himself, fearing lest she never will have another "beau;" but she may take time to look about a little, and try to win the most eligible young man of her acquaintance. And while she is waiting, her active life will so develop and enhance her in every way, mentally as well as physically, that some day, as she returns all brilliant and blooming from a good brisk walk, in vivacious spirits, happy and free from care as a bird, she will attract the attention of some true, sensible man, who will help her, as his wife, to make life all that she wants it.

Will walking do all this? I do not doubt it. Nor will you when you study minutely and experimentally the theory of walking. Physiology teaches that the human body is kept alive and warm by the *motion* of its particles. Motion is life and stagnation is death. For this

reason the nervous system is closely interwoven with the muscular system, for one cannot be set in motion without the other; and the various functions of life—as breathing, seeing, thinking, etc.—cannot be carried on without nervous and muscular action combined. To prove this so that every one may understand it, I will briefly state that the blood vessels, the absorbents, and the gland ducts, etc., have muscular coats, and the skin, both internal and external, a muscular substance. Into every part of this substance, however delicate, enter fine filaments of nerves, only to be seen by the microscope; and as all these various parts, with others, enter into the composition of the brain—we, therefore, cannot think without both nervous and muscular motion.

Now, since the muscle and nerve forces must be supplied with arterial blood before they can act at all—and since, if this blood is too much decarbonized, from sluggish or imperfect action of the lungs, or the liver, or the skin—indeed of any or all the eliminating and excretory organs of the body—it follows that all the various systems of vital force will act imperfectly and sluggishly.

Walking corrects this in a very simple and efficient manner, because in walking we exercise certain large muscles of the trunk and legs, which in sedentary occupations remain inactive. Of course I am speaking of unrestrained, natural walking—the most truly graceful of any human movement. In this exercise one set of large muscles urges one leg forward, while another set, equally powerful, pushes the other leg back; and still others slightly sway the lower part of the trunk as the body advances. These large, powerful muscles, with their nerves, in contracting and relaxing, draw to themselves a large supply of blood, most of which may have been previously accumulated in too great quantity upon some internal organ, as the liver, stomach, heart or brain, causing congestion, with danger of subsequent inflammation, disease and death.

The smaller muscles are now set in

motion by the larger ones with which they are connected; the arms sway slightly in alternation with the legs; and the head keeps its proper balance and adjustment, while the eyes look forward, upward, downward, and from side to side: and, if one has an agreeable companion, the talking tongue, the smiling face, and the gestures of the hands, set in motion a vast number of little nerves and muscles. All these call for their due share of blood; and since that vital current, when supplied during the first movements of walking, is too much decarbonized from breathing the same air over and over again, or from sluggish action of the detergent organs, the lungs are now set in powerful operation to inhale oxygen, and supply it to the blood as rapidly as possible.

And now this swiftly-flowing, pure life-current is eagerly taken in by the minute capillary tubes of the absorbents, and through the nutritive system distributed to each portion of the solid tissues. Then the peculiar components needed by each substance of the body are taken up by it and formed into new material, while the decaying, used-up particles are set free and carried off—still by the blood—that their presence may not cause disease and death. [For instance, if the carbonic acid, which is produced by the action of oxygen upon the tissues and fluids of the body, was not separated by the blood, and carried to the lungs and skin for evaporation, death would ensue in a few minutes!]

The stimulating effects of fully oxygenized blood are manifested, as we walk, by an increase of strength; an equable and happy state of mind; cares vanish, and cheerful subjects of thought present themselves; the complexion rapidly improves; the forehead gets whiter, and the cheeks and lips rosier (when there are no smothering cosmetics over them), the eyes brighter, the hair more shining. Wrinkles almost, and sometimes quite, disappear, especially those deep, dissipated-looking wrinkles that form beneath the eyes of those who labor constantly in-doors at sedentary occupa-

tions, and at the same time use too much carbonizing food and drink.

If young ladies would study physiology, they would believe it in bad taste and indecent to appear sickly—to be without good health—to be unable to exhibit that fine natural complexion which is the certain exponent of youth in its highest state of physical perfection. It is so simple and easy to be well and strong

and agreeable; so much easier and more pleasant than to be sick or half-sick! And life is so delightful to a healthy, happy girl, with the world all before her, surrounded by friends and admirers, with all experience yet untested, most pleasures yet to come—life is so full of blessedness at any age, that I can only wonder at one who can neglect its chiefest blessing—Perfect Health!

OCCUPATION AS AFFECTING LONGEVITY.

THE industrial relations of individuals, though important, are less so than domestic conditions and circumstances, as influencing the duration of life. The acknowledged theories and the collected statistics of physiologists exhibit some discrepancies, with regard to the connection between occupation and longevity; and medical men have been utterly unable to explain or reconcile these discrepancies. Thus, while agriculture is universally allowed to be the most healthful occupation known, the average lives of farmers, though comparing favorably with mechanics, tradesmen, laborers, factory operatives, etc., is lower in the scale of longevity than that of several other classes. In some parts of England, where this subject has been investigated, particularly in Manchester and Rutlandshire, the "upper classes," or "gentry," where found to be nearly twice as long-lived as the "lower classes," or "workers." These facts require a thorough analysis, or we shall be led into the monstrous absurdity that idleness and dissipation are more conducive to health than industry and temperance.

FOOD AND WATER.—With regard to a farmer's life, it must be remarked that, although accompanied with good air, early rising, out-door exercise, and regular habits, these advantages are in a great measure counterbalanced by bad water and bad food. It is true that farmers *ought* to be the healthiest people in the world; but, unfortunately, they are very ignorant or negligent of the means of health which are so abundantly

at their disposal. With ample facilities for enjoying the best possible diet, they generally employ the worst. Hard water is usually drank, and, in this country particularly, stale salted meats, superfine flour, greasy compounds of all kinds, and butter and cheese, constitute the essentials of their dietary system; fruits, melons, and the more watery vegetables being regarded almost entirely in the light of luxuries or seasonings, which may be dispensed with or sent to market, or, if employed at all, are so saturated with sugar, butter, vinegar, salt, pepper, etc., as to be really worse than none.

CAUSES OF PREMATURE OLD AGE.—Cities are universally reputed to be unhealthful residences; and this fact puts the inhabitants on their guard—compels them to study, in some degree, the laws of life and health. Their greater exposure to danger becomes the means of rendering them more intelligent; and the caution they exercise in the selection of the articles and qualities of their foods, very nearly balances the natural advantages of the rural districts. The difference between fresh meat and salted, as an article of diet, is very great; and in this respect the inhabitant of the city has a vast advantage, because in cities fresh meat is the staple article of animal food, and salted the exception; the reverse being true in the country. It is not easy to convince the farmer that he can labor without old pork, bacon, or salted beef; but these articles are nevertheless among the principal causes of his rigid

muscles, stiff gait, numerous infirmities, and premature old age.

ECONOMY IN LIVING.—The “upper classes” have the advantages of selected locations for their dwellings, plenty of room, clean yards, well-ventilated sleeping apartments, and favorable external circumstances generally. The poorer classes generally occupy the insalubrious localities, because they are cheaper, rear buildings, garrets, cellars, etc., circumstances which will always very materially abridge the period of existence. It is true that laborers are not generally fairly dealt with by capitalists, but it is equally true that laborers have all the means requisite to improve their condition, and become completely independent. Their misfortune is, they know not how to use those means. Their great error, and the grand source of their slavery from generation to generation, is in their dietetic habits. Three or four times as much money is expended on articles of food which give them imperfect nourishment, and render them liable to diseases, with loss of time, and doctors’, nurses’, and apothecaries’ bills accumulating, as is necessary to afford them healthful sustenance, if rightly applied. The money saved by a correct regimen would procure them better residences, and admit of an annual deposit in some savings bank, in view of a future homestead. It is a fact, that, in the United States, and indeed in almost any other country, perhaps in all, wages are sufficient to emancipate the laborers from the thrall of capital in a very few years, if the “toiling millions” would but make a judicious application of their earnings.

PURSUITS INIMICAL TO HEALTH.—There are some occupations necessarily unwholesome, and requiring special precautions on the part of those who pursue them. Millers, cotton-spinners, tea and coffee-roasters, paper and machine-makers, iron and brass-filers, glue and size-boilers, tallow chandlers, etc., are exposed to an atmosphere loaded with powders or gases which exert a deleterious influence on the lungs. Thorough ventilation, and a position “to windward” of the

current of floating particles, are indispensable considerations. Plumbing, painting, and the arts of the operative chemist, potter, and coppersmith, are deleterious, to some extent, from the substances which are volatilized by various processes being inhaled. Experiments in relation to lead-poisoning, however, have shown that workmen in smelting establishments, house-painters, etc., are injured far more from the metallic particles which adhere to their hands and clothes, thence finding their way into the stomach, than from absorption through the skin, or inhalation into the lungs. The proper precautions consist in changing the clothes before going to meals, and thoroughly washing the hands, carefully removing every particle of paint or metallic matter from under the fingernails. Gold-finders are exposed to sulphureted hydrogen gas, which is exceedingly poisonous.

EMPLOYMENT A NECESSITY.—Severe mental exercise, or close application to study, has usually been considered as unfavorably to long life. This is undoubtedly true as relates to childhood and early youth. The bodily powers are often stunted, the mental functions blunted, and the whole constitution ruined by too early confinement to study. But there is another evil of immense magnitude connected with this view of our subject. Children and youth require much, varied, and regular muscular exercise during the period of bodily development. If the natural instinct for abundance of out-door exercise is repressed, the whole system becomes morbidly sensitive and irritable, and this condition, under the usual stimulating and enervating habits to which youth are so generally the subjects and the *victims*, such as tea and coffee, flesh eating, excessive clothing, feather beds, etc., is aggravated and intensified, until inflammatory secretions and ungovernable passions disorder the whole body, and unbalance the mind. In this state young persons are easily led into any habits of dissipation and debauchery which their associates or superiors are

addicted to. The numerous examples of self-pollution or masturbation among studious young men and boarding-school girls, surely undermining the constitution, and laying the foundation for a brief life of infirmity and suffering, are melancholy evidences of misdirected educational enterprises. The duty, therefore, of bringing every child up to some useful business pursuit, in which the surplus animal energies may be profitably and regularly expended, seems absolutely indispensable to its safety, as well as to the good of society; a duty the neglect of which has caused so many sons of wealthy parents, who were so mistaught as to look with contempt upon honest toil, to turn out debauchees and vagabonds.

USE AND ABUSE OF BODY AND BRAIN.—But intellectual pursuits, or avocations which severely tax the moral powers and higher propensities, do not seem to be inimical to high health and great longevity, when followed with a consistent regard to general hygienic precepts. Dr. Madden, in his "Infirmities of Genius," has given us tabular statements which go to show that those literary pursuits in which the imagination is vigorously exerted are more inimical to longevity than scientific and philosophical avocations. He also thinks that "the earlier the mental powers are developed, the sooner do the bodily powers begin to fail;" a remark which is correct only so far as it applies to the prevalent method of forcing the intellect into premature and precocious exertion, at the expense of the body. Poets and artists are rather noted for early deaths, but they have usually been irregular and dissipated in their habits. Eminent theologians, philosophers, physicians, lawyers, jurists, etc., have died very frequently of apoplexy or palsy; but they were frequently addicted in the later periods of life to "luxurious feeding." Many individuals are designated by historians as "as victims of excessive mental application," who were truly victims of intemperance. Dr. James Johnson, mistaking the abuse of the body for the *use* of the mind, has ex-

pressed the absurd opinion that "a high range of health is probably incompatible with the most vigorous exertion of the mind, and that this last both requires and induces a standard of health somewhat below par." This error of Dr. Johnson has arisen from observing that certain intellectual geniuses—Virgil, Horace, Pope, and others—were of feeble bodily health. It is much more rational to suppose that if "men of genius" would take better care of their bodies, they would manifest still more vigorous and enduring minds, than to impute what mental talent they do possess to bodily infirmity.

EVILS OF PRECOCITY.—Sad examples of the same mistake may be seen at all our seminaries of learning, where bodily infirmity and mental genius *appear*, to the superficial observer, to stand in the relation of cause and effect. But, however satisfied and gratified teachers and parents may be with the "highest prizes" won by haggard faces, contracted chests, gaunt abdomens, and dreamy slumbers, the true physiologist can only see, in the not distant future, sure-wasting consumption, hydra-headed dyspepsia, crippling palsy, or nameless debility, as the probable consequence of this working of the machinery of mind out of all proportion to the bodily development; he must lament, while short-sighted friends rejoice at the prospect.—*Hydro-pathic Encyclopedia*.

A GOOD EXAMPLE FOR MOTHERS.—How touching is this tribute of Hon. Thos H. Benton to his mother's influence: "My mother asked me never to use tobacco; I have never touched it from that time to the present day. She asked me never to gamble; and I have never gambled; I cannot tell who is losing in games that are being played. She admonished me, too, against hard-drinking; and whatever capacity for endurance I have at present, and whatever usefulness I have, I attribute to having complied with her pious and correct wishes. When I was seven years of age she asked me not to drink, and then I made a resolution of total abstinence; and that I have adhered to it through all time, I owe to my mother."

[Sensible Mother Benton! But, suppose her family physician had prescribed porter, beer, or Bourbon, for the nursing mother; "to give her strength, you know." Would she then have admonished her son *not* to use it? Drinking Doctors and drinking mothers have much to answer for.]

HOUSEHOLD AND AGRICULTURAL.

Herein we shall record brief facts and suggestions as applicable to different climates, adapted to Farming, Gardening, Horticulture, Fruit-growing and Domestic Economy, including Healthful Cookery.

SEASONABLE DISHES.

BY JULIA COLMAN.

Warm Bread; Corn Rolls; Johnny Cake; Hoe Cake; Pone; Pumpkin Johnny Cake; Apple Johnny Cake; Baked Apples; Baked Potatoes; Pickled Cauliflower; Savoy Cabbage; Colcannon; Celery, Parsley, Bayleaf, Rice and Apple Pudding; Damson Pudding; Chesnut Pudding; Chesnut Soup; Boiled Chestnuts.

THE season calls for warm bread, and we have a variety. But do you hear the cry of astonishment which this calls forth? "Warm bread among wholesome dishes!" exclaims a dyspeptic. "I thought warm bread a rank poison. It cannot be good—it hurts me in every shape."

So much the worse for you, then, Mr. Dyspeptic; but, so far as the reasonableness of your argument is concerned, you might as well say that walking must be a very bad exercise, for it hurts you to walk half a mile. So, if you cannot eat warm bread, that is no reason why I may not eat it, if I can show that it is, or ought to be, wholesome. The unwholesomeness of warm bread is mostly due to three causes. First, the presence of unwholesome gases, generated by fermentation, aeration, or chemical action. The most of these gases are dissipated by simple exposure to the air; hence we are so often told that bread is not fit to be eaten until it is twenty-four hours old. "It should stand to ripen," is sometimes said; but we might with equal propriety talk about ripening clothes by drying them on the line. Ripening is a vital process, including the perfecting of seed for reproduction, and is wholly inapplicable to a loaf of bread. This fanciful style of talking about our food does a deal of mischief, principally by preventing the use of common sense.

The gases, then, are the first source of mischief; and if we can make bread without generating these gases, we avoid this objection to warm bread; and this we

believe we do when we use simple atmospheric air, instead of fermentation and the mixture of chemicals.

The second cause is the use of fine bolted flour. No such solid, dark-looking streaks can be found in wheat-meal bread as we sometimes find in fine flour bread and cake. This is because the bran and coarser flour prevent the packing and take in more air with them, the expansion of which by the heat makes the bread porous. Inexcusable and bad as heavy bread is, I do not hesitate to say that the heaviest wheat-meal bread I ever saw is more wholesome than light fine-flour bread. When the latter is eaten warm, and before its structure becomes fixed, the particles pack together in mastication, become massed in the stomach, and almost impenetrable by the gastric juice. This cannot happen, to any considerable extent, in coarse wheat-meal bread.

The third cause of unwholesomeness is eating hot bread with melted butter or other grease. In this case the fat becomes more thoroughly incorporated with the cereal than if the latter were cold, and, of course, makes it more difficult of digestion. This difficulty occurs in all kinds of warm bread, and appeals for its removal to the wit of the cook and the self-denial of the eater.

Some of these wholesome warm breads we have already given, foremost among which are the "gems," or batter biscuit; next the rye and Indian loaf, which will be doubly delicious with the new corn-meal; while next on the list we must reckon

CORN ROLLS, which are also in season, and for the same reason. Take corn-meal of medium fineness, say one half-pint; scald it well with boiling water; add one half-pint of cold water, and beat out all the lumps. Then add another half-pint of water, and sift and stir in about one quart of wheat-meal, or enough

to make a batter a trifle thicker than for wheat-meal batter biscuit; and bake like the latter, on the top first, in a hot oven, only from ten to fifteen minutes longer. When dished, cover with a folded towel; or, if the crust be too hard, put into a covered vessel for ten or fifteen minutes. If eaten sooner they will be found soft or sticky.

A JOHNNY CAKE can be made in precisely the same manner, only a little thicker, and baked in a loaf one or two inches deep, in a hot oven, for an hour or an hour and a half. This is a standard dish in many a family. It is, however, rarely uniform throughout. Near the edges, where the heat fixes the paste before the air has time to escape, it is much lighter than in the middle. It is, therefore, more porous if baked in small tins. Still in no part will it be heavy and indigestible. Even when stirred much thinner than the gems, so that it settles flat when turned into the pan, and appears to be entirely lacking in porosity when baked, it may be soft and eat pleasantly. I have seen it preferred and used for years, by those who know how to make it, thicker and lighter. For myself I prefer the lighter, though I would not have it so dry as to require much dressing. Like the rolls, it is better to stand covered from twenty to thirty minutes after being removed from the oven. Its preparation requires too much time to admit of its being served at an early breakfast—and, indeed, for any breakfast it will be likely to be too much hurried; but it makes an excellent bread for dinner. We especially commend it for use in those parts of the country which favor warm corn bread, as both more wholesome and more palatable than the corn bread made with seleratus or soda.

SCALDED JOHNNY CAKE.—Of the all-meal corn cakes, the sweetest and simplest is made by scalding ordinary fine meal in boiling water. Take one part meal and two parts water, not enough to make a batter, but a paste, which you can shape with a spoon to your fancy. Spread it in a cake an inch thick, and bake it in a quick oven, or before an open

fire. If made properly, it will be sweet and light, with a crisp crust.

This is essentially the Virginia "hoe-cake," the "corn pone" of the South, the "corn dodger" of the West—only varying in shape and immaterial peculiarities. They are all usually baked by an open fire. It may be well, however, to notice that "poon" is a common term in the South for any kind of Indian cake, so that the pone of one part of the country may be quite different from that of another. The Scotch use "bannock" in the same way; hence the difficulty of obtaining the correct recipe for that national dish. Indeed, the same thing might be remarked of the New England Johnny cake. There are many ways of making it, which, of course, produce as many different articles, yet they are all recognized as "Johnny cakes."

The latter, however, are seldom made with scalded meal. In this respect the Southerners have the advantage both in sweetness and wholesomeness. The Indians, too, not only scald but boil their bread. In scalding they mix it so stiff, that they can make it into flat circular cakes or loaves, an inch or more in thickness, or eight inches in diameter. These they boil an hour or more, and then eat them, or more frequently they bake them first in hot ashes. This makes such delicious corn bread as I never yet have found among "white folks." The Indians themselves aver that this is invariably better when made with meal pounded in their own mortars, than with that ground in mills. This is partly because meal is heated in the process of grinding, and partly because their pounded meal is coarser. There are, doubtless, other styles of Indian-made bread, but this is the standard among some of the tribes of Central New York.

PUMPKIN JOHNNY CAKE.—Stew the pumpkin until very tender and not very juicy; strain through a colander, and return to the fire. When boiling hot stir in the corn meal, until thick enough to be shaped by a spoon. Make into a cake from one to two inches thick, and bake in a good oven an hour or so, or until it

has a crisp brown crust. This can be made with less pumpkin by stirring the strained pumpkin into a scalded meal paste.

APPLE JOHNNY CAKE.—Chop up pared and cored sweet apples into quarter-inch pieces, and mix with scalded meal in the proportions of one part apples to two parts meal; make it into a loaf from one to two inches thick, and bake in a hot oven fifty minutes or more, or until the apples are tender. This can also be made with tart apples, or with currants, or other dried fruit; in which latter case, however, it will need to be made more moist. It can also be steamed, instead of baked.

BAKED APPLES.—While the sweet apples are on hand, do not forget to have some baked. They make a delicious breakfast dish, go charmingly with bread and milk, and are not to be despised for dessert. Select those which are undoubtedly sound, for it is an awkward thing to cut into a worm-hole, and still more so to have its occupant fall out upon the plate. Wash or wipe clean, take out the core with a corer, and bake on a pie plate, never on tin. This direction is still more important for tart apples, but should be observed for the sweet ones also. The oven should be hotter for sweet than for sour apples, but moderate for both. They are often spoiled by too much baking. Yet they must be cooked tender, and there is no absolute "rule" to be given. So much depends on the heat of the oven, and on the variety of apple, that the judgment of the cook alone, in this as in many other cases, must decide the matter. Those who doubt that skill and judgment are necessary even to bake an apple properly, have yet to learn some important principles in cookery.

BAKED POTATOES afford another illustration of the necessity of skill and care. Some cooks invariably spoil them, and very few have them done as well as they might be. Have them nearly of a size, or so carefully graduated that all shall require about the same length of time for cooking. Bake quickly, and yet without

burning. Toward the last, watch them very closely, and try them by feeling them through a towel; and as fast as they are done, squeeze them until the skin breaks and lets out the steam; then lay them in a hot dish, cover with a folded towel, and serve as soon as possible.

CAULIFLOWER is one of the things that claim some attention at this season. The common and we might say the best method of cooking is very simple, and was given last January—simply boiling whole until tender, and serving with a white sauce of thickened milk or cream, or green corn milk. Cauliflower is sometimes also mashed up after boiling, and seasoned with salt and butter, or, as we should prefer, with beaten yolk of egg and a dash of lemon juice. Pickling is also a favorite preparation with the *haut ton*. This we improve on after this fashion. Steam the cauliflower until half done, and then make a dressing of sweetened damson juice, or of cranberry, or of damson and quince, adding a little lemon juice, if necessary, to make an agreeable acid. Pick the cauliflower to pieces, lay these closely in a saucepan, pour over them the sour dressing, cover close, and stew gently until tender. Put away in the dressing and serve cold. Those who can eat such a "pickle" as this, and then prefer cider vinegar, have—well, we will put it mildly—a perverted taste. The same kind of pickle will do for cabbage, which should also be cooked until tender. We do not pretend that this will "keep" like common pickled preparations. We do not make it to keep, but to eat—on which subject we propose to dilate at some future period.

SAVOY CABBAGE.—Of all the varieties of cabbage in the market at this time of the year, we know of none nicer than the Savoy. It is tender, sweet and handsome, and though the heads are not generally so solid as the best of other cabbage, still it cuts nicely. It may be known by the peculiar appearance of its leaves, closely resembling, only on a larger scale, the curled leaves of the common sage. It seldom grows large enough to be good for stuffing; but steamed or stewed by

itself in a very little water, it makes a toothsome dish. It also goes well in

COLCANNON.—This, it is needless to say, is an Irish dish, and, when well made, is by no means to be despised. Like other national dishes, it is made in a variety



SAVOY CABBAGE.*

of ways; but its essential ingredients seem to be potatoes, cabbage and turnips. Some add onions and pork, but we can dispense with the latter item at least. Take a deep boiler, or a large saucepan with a tight cover, and put in one pint of water. Into this put one half pint of sliced onions, one pint of shred cabbages, and one pint of sliced turnips. Cover very close, and stew gently for three-fourths of an hour; then add one quart of medium-sized potatoes, cover again, and stew until the potatoes are barely done. Then drain off the water or juice, and if there is more than a gill, stew it down and return it to the pot with a little salt. Mash and mix thoroughly with a pestle, adding cream, if necessary, to make it the consistency of common mashed potatoes. Serve at once.

If we had been in the habit of keeping Hallowe'en, we should have remembered to give this an earlier insertion, and added to the recipe a ring, the fortunate finder of which (or unfortunate as the case might be) would be sure to be engaged in less than a year—but we cannot warrant that part of the recipe. It has failed once to our certain knowledge, and since that time we have given up keeping All-Hallowe'en. Still we hold no spite

*For the use of this fine cut of Savoy cabbage, we are indebted to Messrs. Schlegel, Everett & Co., seedsmen, of Boston, Mass.

against colcannon, which is an excellent dish when well made, even without the ring. The main points to be looked after are to have the potatoes not done enough to be watery, to have the other vegetables done very tender, to have the water done out at the right time, and then to have all mixed intimately. This eats well with roast or corned beef and some potatoes; and a nice accompaniment to both is

C E L E R Y.—We have been much amused of late to see the wonderful virtues attributed to this plant, in paragraphs going the rounds of the papers. People are slow to learn that there is no nostrum nor plant which they can take or eat to counteract the effects of carelessness and self-indulgence. If they wish to be well, they must take care of themselves and eat correctly.

Wild celery or "smellage," or more correctly smallage, is slightly poisonous, which may have given rise to the notion that it is "good to take" (so perverse are our notions on these subjects); but, like parsnips, it seems to lose this property by cultivation and become harmless. It should be well masticated, for which task, however, it will return very little nutrition. It is mostly valuable as a relish and as a diluent for those who eat much concentrated and constipating food.

PARSLEY is like unto it in these respects—a harmless flavor with little nutrition; but we fear that all this cannot be said of the

BAY LEAF.—

This is a condiment of which we saw very little in this country, until the advent of Prof. Blot, in whose recipes "two bay leaves and a sprig of thyme," are repeated with amusing frequency. And yet a noted English



PARSLEY.

cook-book, not at all hygienic in its notions, says that bay leaves "ought not to be used without the greatest caution, and never unless the cook is perfectly aware of their effects." The fact is the Bay is a poison laurel, and the leaves contain prussic acid, for the sake of which mostly they are used, though not one cook in a hundred is aware of the fact.



BAY LEAVES.

RICE AND APPLE PUDDING.—Now that we have good, rich, cooking apples we must improve them. Take the best you can get, greenings if possible; pare, core and cut into half-inch pieces; put them into a pipkin, jar, or porcelain-lined saucepan, with tight cover, and scatter in uncooked rice in about the proportion of one part rice to four parts apple; fill up with water, cover close and bake in a moderate oven two hours, or until the rice is properly tender. Dish hot, sprinkle it over with sugar, and eat before it is quite cold, dressed with milk or cream if desired. If preferred the sugar may be put into the pudding before baking.

CHESTNUT PUDDING is a delicate dish, but more troublesome than the preceding. The chestnuts must be boiled, peeled, pounded, and rubbed through a sieve, and the apples (tart) must be pared and grated. Then, to one half-pint of the chestnut, add one pint of the grated apple, about one gill of sugar (to the taste), and one teaspoonful of lemon or damson syrup. Bake half an hour, and serve cold with sweetened cream, or milk, or some of the more delicate fruit sauces.

DAMSON PUDDING is a still more elaborate dish and worthy to grace any holiday table. Those who prepared damson syrup, or canned damsons as we advised, will be able to try it. Stew one pint of large Muscatel raisins one hour. Then (for a large pudding) in a three-quart round nappy place a layer of rice on the bottom, sprinkle in the raisins,

and cover with the remainder of the rice, one pint in all. Pour in one pint of water carefully, cover close and set it on the stove to stew. In ten minutes, or when the rice is scalded and fixed, pour in carefully one pint more of water, cover and stew very gently half an hour. Then to one pint of water add one gill of damson syrup and three gills of sugar, or enough to make it quite sweet. If the damsons are canned, use one pint of the juice without water; when sweetened pour it on the rice; stew five minutes, and then spread over half an inch deep a mixture of apple and chestnut, as prepared for chestnut pudding, or if chestnuts cannot be had, a mixture of three parts grated apple and one of grated cocoanut, sweetened and flavored with lemon juice. Bake in the oven half an hour, and if desired cover at the last with a meringue made with the whites of five eggs, whipped light, and one gill of powdered sugar, served cold and brown with sweetened cream or milk.

CHESTNUT SOUP may as well come in here, while we are talking about chestnuts. This may be made by thickening common soup stock with chestnuts, or using the chestnuts by themselves, with salt for a seasoning, and wheat-meal for a thickening. For the latter, take half-a-pint of boiled chestnut meats, beaten and rubbed through a sieve, and one gill of wheat-meal to each quart of water. Mace is the popular seasoning.

BOILED CHESTNUTS make a delicious breakfast dish, and tolerably, if not entirely, wholesome. They are not so oily as most other nuts; and to cook and eat them at meal times only would certainly be a great improvement on the present hap-hazard way of eating them between meals, raw or only half roasted. It would also give an agreeable variety to the morning meal, or to the dinner dessert. A mischievous voice in my ear whispers that chestnuts make a delicious coffee, equal to cocoa, to which I sagely reply: "Yes, my dear; but why scorch the sweetness out of them?" They are far better boiled or roasted or made into soup, and we who do not care for the

fashions, who do not wish to drink with our meals, and, above all, who do not wish to stimulate with anything eatable or drinkable, would prefer the better modes. And this reminds us of the many things yet unsaid—the secret charm, the power, and the bane of tea and coffee; the mental and moral influence of our food, and many other topics, at which we have hardly yet glanced. The field widens before our view, and the interest deepens. Who among our patient readers wishes to go further?

CHEMISTRY OF FURNITURE.—Young housekeepers do not always understand the theory of the chemical and mechanical action of different substances on articles of furniture. The substances from which furniture is chiefly exposed to injury, are water, oils, alcohol, and acids.

Acids act on marble. Marble is itself composed of carbonate of lime; that is, it is a compound of carbonic acid and lime. Now, the carbonic acid has a comparatively weak affinity for lime, and most other acids will prevail over it and take its place when brought into contact with it, thus destroying the texture of the stone, liberating the carbonic acid, and leaving *nitrate of lime, or muriate of lime, or sulphate or acetate of lime*—as the case may be—in the form of a white powder in its place. But oils, alcohols, and water, produce no effect upon marble.

All varnished or polished surfaces of wood, on the other hand, while not injured usually by acids, are attacked by *alcohol*. Varnishes are composed of different gums and resins which are generally soluble in alcohol. Many of them are made by dissolving the material in alcohol, so as to liquify them, and then when they are applied, the alcohol evaporates, leaving the gum or resin in a thin, even coating over the whole surface. If now any alcoholic substance comes upon such a surface, whether it be alcohol itself, as used for lamps, or spirits of any kind, or even wine, which contains but a small percentage of alcohol, the varnish is attacked, a portion of it is dissolved, and the brilliancy of the surface is destroyed.

Oils will not attack either marbles or varnished surfaces, and will do no injury except to naked wood or other porous substances which admit them into the pores, from which they cannot afterwards easily be expelled.

Water affects no substances except such as have open pores exposed, in which case it enters and causes the substance to swell; or such as are soluble in water, as glue in joints, and mucilage or gum arabic, used sometimes for attaching superficial ornaments to fancy work.

The practical lesson to be learned from this is,

that housekeepers must take care, in dealing with furniture, to keep water away from everything soluble in water, oil from everything porous, alcohol from varnish, and acids from marble.

So shall your chairs and tables always look bright, and your minds remain calm and serene.

YOUNG TREES IN WINTER.—Many persons seem to think that when they have set out fruit trees, they have done their part, and if the trees do not flourish, the blame is laid to the nurseryman, or they conclude that their land is not suited to fruit. Besides neglect, trees have active enemies both biped and quadruped. A good fence, with gates securely fastened, is a great protection against the larger animals, no matter whether they have two or four legs. If one has trees in grounds usually approached by a curved path, they stand a poor chance when snow is on the ground. There are certain heathens who will strike a bee line with their sleighs and sleds from the gate to the house, and if there are any young trees in the way, so much the worse for the trees. We once suffered very severely in this way, and when remonstrance was made, all the satisfaction we got was the information that there were no roads when snow covered the ground. We know of no way of dealing efficiently with these two-legged brutes, but there are some small four-legged ones that need looking after and whose depredations can be warded off. Mice are often troublesome in a young orchard. If clean culture has not been followed, it is not too late to remove all dead weeds and other rubbish that can harbor mice. The little fellows like to work under cover, and the remains of weeds and grass afford them convenient shelter. They have a grand time under newly-fallen snow, and it is well to head them off by tramping the snow firmly around the tree.

Among the various preventatives of the attacks of rabbits, none are perhaps more easily applied or more efficacious than that proposed by Doct. Warder, at one of our pomological meetings. The rabbit is rather fastidious as to its food, and has a great dislike to animal matters. Indeed it was long ago recommended to shoot a rabbit, split it open, and rub the tree with its body, as a warning to its fellows. Doct. Warder's plan is to spatter the tree with blood. Blood is readily obtained wherever slaughtering is done, and with a vessel of this, and a swab made of corn husks tied to a stick, one can bespatter a young orchard in a short time. Doct. W. states that a single application suffices for a whole winter.—*Am. Agriculturist.*

WHAT IS IN THE BED-ROOM.—If two persons are to occupy a bed-room during the night, let them step on a weighing scale as they retire, and then again in the morning, and they will find that their actual weight is at least a pound less in the morning. Frequently there will be a loss of two or more pounds, and the average

loss throughout the year will be a pound of matter, which has gone off from their bodies, partly from the lungs, and partly through the pores of the skin. The escaped matter is carbonic acid and decayed animal matter or poisonous exhalation. This is diffused through the air in part, and part absorbed by the bed-clothes. If a single ounce of wood-cotton be burned in a room, it will so completely saturate the air with smoke that one can hardly breathe, though there can only be one ounce of foreign matter in the air. If an ounce of cotton be burned every half an hour during the night, the air will be kept continually saturated with smoke, unless there be an open window or door for it to escape. Now, the sixteen ounces of smoke thus formed is far less poisonous than the sixteen of exhalations from the lungs and bodies of two persons who have lost a pound in weight during the eight hours of sleeping; for, while the dry smoke is mainly taken into the lungs, the damp odors from the body are absorbed both into the lungs and into the pores of the whole body. Need more be said to show the importance of having bed-rooms well ventilated, and of thoroughly airing the sheets, coverlids, and mattresses in the morning, before packing them up in the form of a neatly-made bed?

NATURAL SUCTION PUMP.—Livingstone, the African traveler, describes an ingenious method by which the Africans obtain water in the desert: "The women tie a bunch of grass to one end of a reed about two feet long, and insert it in a hole dug as deep as the arm will reach, then ram down the wet sand firmly around it. Applying the mouth to the free end of the reed, they form a vacuum in the grass beneath, in which the water collects, and in a short time rises to the mouth. It will be seen that this simple, but truly philosophical and effectual method, might been applied in many cases in different countries where water was greatly needed to the saving of life. It seems wonderful that it should have been now first known in the world, and that it should have been habitually practiced in Africa, probably for centuries. It seems worthy of being particularly noticed, that it may be highly important to travelers in our deserts and prairies, on some parts of which water is known to exist below the surface."

VEGETABLE POISON.—Strychnine is unquestionably a very dreadful poison, the essential property of *nux vomica*, a nut. Yet notwithstanding its destructive potency, physicians are all the time prescribing it. Of course, the doses are extremely minute, but "littles make mickles," says the proverb. A question may hereafter arise, as science advances, in regard to that old attribute of conscience called a responsibility, in dosing patients with a positive poison in any form. A running vine, *cacuva*, yields precisely the same product, which is distilled by natives of the Upper

Orinoco. They are marvellously expert with air guns—mere tubes of a bamboo, about six feet long. Dipping the points of small arrows in the liquor they blow them with such unfailing accuracy as to hit game at a considerable distance. So quickly is the poison diffused the animal falls directly. As soon as secured the hunter spits salt dissolved in his own mouth into the puncture, which instantly neutralizes the deadly charge. The flesh is then perfectly safe for food.

WATERING WINDOW PLANTS.—There is one universal law as to watering plants, which a great many people entirely neglect. The neglect of this one duty causes more blights and more unhealthy plants than, perhaps, any single thing that could be named besides. I mean the excellent rule of watering them with warm water—always rather warmer than the soil the plants are growing in. People must see the check and injury it must be to plants always to get cold food. The organs of tender plants are extremely delicate; and when they are wanted to digest their food, it is a bad plan, surely, to paralyze them with cold. If we feed them, on the other hand, with food a little warm, they are stimulated at once to make the most of their meal. Another important part of the watering branch consists in the washing that all house plants require.

TO MEND CHINA.—Take a very thick solution of gum arabic in water, and stir into it plaster of Paris, until the mixture is of a proper consistency. Apply it with a brush to the fractured edges of the china, and stick them together. In three days the articles cannot be broken in the same place. The whiteness of the cement renders it doubly valuable.

PRESERVING EGGS.—J. C. Higgins, Delhi Mills, Mich., writes: "In answer to correspondent in June number about preserving eggs, I would say that I think the following plan will keep them, and without giving them any unnatural flavor: Dip them in boiling hot water, taking out immediately, then lay them in fresh salt, separate from each other, small end down. To my certain knowledge, eggs that were packed after this plan last summer were as fresh, apparently, when used in April last, as when laid. I know one woman who sold four hundred dozen at one time, during the winter, when they were high, that were put down during the summer in this way; they were all good."—*Poultry World*.

TO JAPAN OLD TEA-TRAYS.—First clean them thoroughly with soap and water, and a little rottenstone; then dry them by wiping and exposure at the fire. Now get some good copal varnish, mix it with some bronze powder, and apply with brush to the denuded parts. After which set the tray in an oven at a heat of 212 to 300 degrees until the varnish is dry. Two coats will make it equal to new.

FASTENING LOOSE WINDOW-SASHES.—The most convenient way to prevent loose window-sashes from rattling when the wind blows, is to make four one-sided buttons of wood, and screw them to the tops which are nailed to the face-casings of the window, making each button of proper length to press the side of the sash outward when the end of the button is turned down horizontally.

The buttons operate like a cam. By having them of the correct length to crowd the sash outward, the sash will not only be held so firmly that it cannot rattle, but the crack which admitted dust and cold air will be closed so tightly, that no window-strips will be required. The buttons should be placed about half way from the upper to the lower end of each stile to the sashes.

PACIFIC DEPARTMENT.

C. F. YOUNG, M. D., Corresponding Editor.

THE CLOSING YEAR!

FULL of experiences and bright expectations, it is passing away. To many who read THE SCIENCE OF HEALTH, it brought joy, and has tinged all their future with bright-hued hopes. Others to day, looking back, are disappointed. Healthwise, they have not made the progress anticipated; for these we have no encouragement. It is only those who, day by day, conscientiously square their lives by the divinely-appointed physiological laws of life, that can enter into the joy of hopes realized.

"Just this one cup of tea, just this one hot biscuit; to-morrow I will come down to the rule of right, hinted at by the wakeful unrest sure to follow tea-drinking."

"Please, madam, for your own sake, do right now? Quit the nerve-exciting tea, that you may this night sleep sweetly."

"I must entertain company. .To have any sparkle or cheerfulness in voice or face, I require stimulants."

The tea was drank! Day by day its strength and quantity increased. Each day of the year brought care and necessity for expenditure of vital power. The "to-morrow" of obedience did not come. The penalty of irritability, trembling, wakefulness, terrible headaches and hemorrhage, came also. The clear-headed could easily connect the indigestion and prostration with the disobedience. Expostulation only elicited the refrain—"give me something to take!"

This class of readers are not benefited. Why? Because they had not the courage to fight the battle with self.

Thousands of invalid women each day

repeat with their lips, "lead us not into temptation," and then passively consent, yes welcome, and seek the temptation to eat and drink which they know invites—death.

If religion is good for anything, it is good to live by. Not until every appetite shall have been brought into subjection to the Gospel,—"Do thyself no harm,"—will we fully come up to our privileges. Whoever wishes it earnestly can grow strong to resist temptation; strong to do right. Sunshine and green fields lie just beyond these difficult hills. Only assert yourself, dear reader, and climb away from appetite and faint-hearted cowardice, and the victory will be yours.

Thank God! there are people who can reform. Simplicity, regularity, temperance, characterizes their lives. Evenness of temper, a sunshiny spirit, and increasing mental and physical vigor is their reward. Their friends have learned to respect the habit of rest-hour as much as they do the hour of morning worship. Who would think of making a social call Sunday morning? When the importance of rest-hours shall be, by personal friends, as thoroughly understood, they will be as much respected.

Without regular rest, between the morning and evening, and before midnight, the sick, or those failing in health, cannot hope to recover rapidly. Add to this, the determination to take on the habit of regularity of meals, and moderation in the quantity of food taken—not forgetting the law for dyspeptics and nervous people,—i.e., but one or two varieties of nutritious food at a meal—never

more than three—taken slowly and cheerfully.

If dress is a burthen, and life therefore a round of weariness, firmly decide, in this last month of the old year, to so dispose of the extra garments and adjust the remaining, as shall insure freedom, with comfort and ease. This can be accomplished without violating good taste or being singular in appearance. Let all garments suspended from the shoulders and loose enough to turn round in, made of light and warm materials, from neck to toes. The rule should be: "So loose as not to make a crease, or mark, on the flesh."

Exercise, passive or active, in the open air every day. Pure air in all house-rooms, both night and day. That the blood may be vivified and brain quickened, *pure* clean air is as necessary indoors as out.

One may live in a mansion so cold and stately as to encourage sickness. A cabin may be dark and gloomy. In both, bright colors, pictures, flowers, and windows welcoming the glad sunshine, are needed. Bird music and child music take attention from self.

In our HYGIENIC MATERIA MEDICA, all these things are prized as restoratives. Undisturbed rest must be secured; therefore, a bed by one's self. There may be two or three in one room; but the tired nervous child or person should have the entire bed, that they may woo and win the sweet sleep so necessary to the recuperation of strength.

Cleanliness of person; hence facilities for the bath must be provided. A little ingenuity and trifling expense; a screen, or curtain, an extra tub and bucket, will enable a whole family to have the tri-weekly wash off; and the invalid, his or her sitz, and foot-bath each day, in a warm room. Where there is an honest will to do right, there can surely grow up an earnest persistent way.

We have found and know a score of persons, who five years ago were discouraged, hopeless invalids. By persistent use of the simple pleasant means referred to, they have lost yellow, and

gained rosy complexions. Eyes once dim are now bright. Cheeks once hollow are now full and radiant with health. Spirits once discordant are now harmonious. Hearts once heavy are now light and loving. The homes once sorrowful are now joyful.

It is lack of attention to these minute details of life that occasions so much sin and suffering. Therefore we take the liberty of prompting readers, old and new, to get ready to live! Learning wisdom from the faults and failures and mistakes of the past, let us all, faint-hearted and strong, be grateful to the All-Father for the multiplied means of instruction. Up and away to the morning land of love and light, running with joy to win the prize set before us. Flowers will gladden our eyes and senses every hour; beautiful far-reaching prospects will unfold before us; heaven will not seem so far away.

DRUGGING CHILDREN.

AN eminent physician says, that after twenty-five years' experience, he is satisfied that the practice of drugging children with soothing syrup and other preparations containing the principle of opium, is very destructive to the nervous system, and almost sure to beget a taste for alcohol and opium in after life.

Mothers who are in the habit either of quieting crying babies with drugs or permitting nurses to do so, will act the part of wisdom if they act upon the hint given by this eminent physician. The appetite for stimulants and opiates which ruins many a man and women, is doubtless in many instances, first created in the years of infancy; and it is a lamentable fact that the origin of an appetite for such things often antedates the period of infancy. Intemperate fathers and mothers have much to answer for in that respect.—*Pacific Christian Advocate*.

[There are mothers, as well as nurses and servants, who habitually "dose" children to make them sleep, while they are "having a good time." Oh, the evil of these soothing syrups! They make idiots, imbeciles, or permanent invalids of thousands of these poor little victims.]

CALIFORNIA FRUITS.

BY MRS. CARRIE F. YOUNG,

At the market places, in the cities, one can find strawberries every month in the year; but they are not much sought for out of the regular season, which commences the last week in April.

Wishing to succeed and reap the largest profit from the smallest investment of capital and labor, one can prepare the land and furnish the plants, and the flowing well, wind-mill or ditch privilege—then go to a “Tyee” or the head of a “Chinese house” in ‘Frisco, and bargain for a gang of men—twenty—forty—or more, according to the number of acres. The men bargain to do all the work, from setting of plants to picking the fruit ready for market.

They board themselves in tents or “sheds” as may be agreed on; and through their “Tyee,” are supposed to receive one half the gross receipts from the sale of the crop. The owner or his agent receives the crop, consigns, or sells it, pays the taxes, keeps up repairs, collects, etc.

The past three years’ strawberry business has not been extravagantly profitable along the coast market-places. In Placer County, situated on either side the C. P. R. R., by which fruit can be shipped each P. M. at four o’clock to go toward and through the snowy mountains, to Truckee, Reno, Virginia City, Austin, and forty or fifty other mining camps in Nevada, strawberry culture will be increasingly profitable.

Hard berries are successfully shipped by railroad 450 miles, then by stage coach, 200 miles to Silver City, Idaho. They arrive in good order, and are delicious eaten beside snow drifts from ten to thirty feet deep! We had such a feast, the 15th May, 1872. The berries cost \$1.50 a pound, and were cooled on snow-banks said to be 30 feet in depth!

Coming up through Placer County the first week of last May, we saw many hundreds of cases of cherries and berries that brought their owners from twelve to thirty cents a pound, wholesale. The

railroad collects twelve and a-half cents, the middle men would at least double their money—hence, strawberries at Reno and Virginia brought fifty cents, four times the first cost.

Cherries have never been less than twenty cents at wholesale. Here is room for a splendid speculation. The birds are the only enemy they have.

Red June and Astrachan apples are early and command a good price, averaging for the mountain market three cents a pound. Six year old trees frequently bring their lucky owners sixty dollars a tree. The red currant and cherry currant and early Wilson blackberry are equally profitable. Three acres in seven or eight varieties of fruit is all that one man can attend to. In picking time, he will require two to three good hands to help him. We know a three-acre place that last year had seven rows of Antwerp Red raspberry bushes. The second year from the set, these seven rows, one hundred and forty feet in length each, yielding 1,600 pounds of perfect fruit, sold at wholesale at twenty cents a quart or pound. They were cut back to three feet in height, supported by trellises of pine poles; were mulched twice a year with litter; cultivated between the rows; watered once a week. The third year the owner was positive his crop would be more than doubled. The soil was “slum” from the old mining ditches, well mixed with decomposing slate, the whole deposited by water on rocky ledges and boulders.

The black July grape is earliest in the market, and for table use has quick sale at twenty, then fifteen and ten cents a pound. Ditto, Flame-To-kay, and Malaga Muscatelles.

Peaches, plums and pears are so large and luscious no language of ours could do justice to them. The peach fruits in two years from the seed; plums and pears in three years. We had them all in July at Salt Lake City, of California growth. Apricots, nectarines, pomegranates also thrive but will never become as popular with the people.

At and below Auburn the orange and

fig perfect—the last yielding three crops per year. Thirty-two miles above, in the snow line, the most delicious, fine-grained and flavoured Rhode Island Greenings and Spitzenburg apples grow. They retain their juices and crispness until May, and are worth at that time five cents per pound. Just as soon as competition and narrow-gauge railroads shall reduce freight tariffs, San Francisco will consume all that can be put in the market. At present very few of these delicious snow-fruits find their way there. They are freighted to Truckee by wagons—kept in cool cellars, and freighted on to Virginia, Carson and other camps and cities in the spring.

The introduction of the "Alden" drying-houses will add much to the profits of orcharding and fruit culture. We know one house that after Christmas last year, in five days put 2,800 twenty-five pound boxes of grapes through its processes. They lost by evaporation only forty per cent., and in place of a drug in the market, were changed into good raisins, worth twelve and a-half to sixteen cents a pound !

Apples, pears, plums, and, so far as we have tested, all the small fruits by the "Alden process" retain all their delicious aroma of acids and sugar, without a particle of decay, or the possibility of insects or worms.

L. A. Gould, of Santa Clara, dries the fruit from ninety acres of orchards. He has opened a new 6,000 acre farm in Fresno Co., bringing water twenty-one miles. The ditch was commenced and completed inside of sixty days. After the 1st of May last, he put one hundred acres of cotton. We saw on the 20th day of last March, on Mr. Gould's place, 15,000 almond trees six inches high. They were put in the boxes to sprout in December, planted in nursery rows in February. The great frost of April 5th that damaged the fruit crop clear down to Los Angeles, did not touch the plains of Fresno. Mr. G. also had five men busy putting in the cuttings for one hundred acres of raisins (Malaga Muscatelles). Six hundred acres of grain to be cut for

hay looked very nicely. The place had been commenced but one year. Last year, at the lowest known prices, the twenty acres of strawberries alluded to, netted the owner \$160 per acre.

A blackberry patch of one and one half acre last year, gave sixteen tons of perfect fruit. The soil was a rich light alluvial. The plants were set 4 x 8. They were cultivated thoroughly and cleanly, and irrigated copiously from the time of blossoming once a week. One man can pick 100 to 112 pounds per day. Seven men were employed through the fruiting season and constantly at work. They are more profitable than strawberries.

There is room and fruit in the beautiful foot hills of California for a hundred fruit houses. The market is the whole world—at paying prices and good profits.

A NEW DRINK.—*The Doctor*, a journal published in England, learns that "the acute commercial element of the Americans," have made a profitable discovery, which in point of usefulness will be on about a par with their "wooden nutmegs." This discovery is, that by flavoring in a certain way, petroleum or other mineral oil, can be metamorphosed into champagne, which will, among ordinary people, and even champagne makers themselves, pass current for the finest Krug or Moet and Chandon. The oil is said to be sweetened with glycerine, aerated by a soda-water machine, and largely sold, being consumed principally at public balls and other gatherings, where economy is generally an object, and cheapness the most appreciated quality in wine. This "petroleum champagne," the name given to this native American brand, is said to produce terrible headache, often severe diarrhoea, and other bad consequences. *The Doctor*, having made these interesting, but hardly welcome disclosures, winds up with a prayer that the report that some of the new wine has reached England may prove unfounded.

[We do not think it becoming in an Englishman,—the most thirsty of all animals,—to ridicule or make fun of our American "drinks." Let him rather hold the mirror up to John Bull, and note the bloated state of his person. While America has 400,000 drunkards,—including those of European importation,—Great Britain alone, has six hundred thousand drunkards, most of whom are paupers, many of whom are criminals, none of whom are good citizens. Go slow, John, when treading on such questionable ground as that of criticising the "drinks" of Jonathan. Do you remember the Boston "Tea Party?" or the Geneva Award? Go slow.]



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TIMELY TOPICS.

The current thoughts of the leading minds in the Medical Profession, and all improvements or innovations in the Healing Art, will be collected, criticised, and discussed in this our Editorial Department.

"ALL ASHORE."

THE good ship, SCIENCE OF HEALTH, has arrived in port. She made the voyage around the world in just three hundred and sixty-five days. She comes in on time, with a full cargo; every man at his post, and all in good health. "All ashore!" and each of the voyagers hies away to his home, glad for having seen so much, heard so much, and learned so much about "RIGHT LIVING," and which he never can forget. We have had sensible discourses on hygienic navigation, by the best writers also; on light, air, temperature, diet, electricity, bathing, sleep, exercise, rest, and on disease and its treatment; the eye, popular physiology, seasonable dishes, food for infants, clothing and woman's dress; pre-natal influences, and other important topics, in each and every monthly session. We have carried no poisons; none of our officers or crew get drunk, fight—except with tongue and pen; nor do they speculate, or indulge in games of chance, in experiments with human life; nor use any sort of pills, powders, bitters, or other poisonous preparations, "put up in 25 cent boxes, or in *large* quart bottles, at *only* a dollar a bottle!" And the more you take of either, the worse you are off!

Our mode of treatment is in accordance with Nature's laws—not in violation

thereof; and, being on "the right tack," we are *sure* to succeed. Among the many who have voyaged with us so far, we are not aware of a single passenger becoming sea-sick, or sick of his diet; while hundreds testify to their entire satisfaction with rations, management, accommodations, and with the lively, agreeable, temperate and intelligent company with whom they meet and converse. In fact, officers, crew and passengers fraternize perfectly. All are agreed that the thing we are doing will ultimate in a better mode of life than is known to the world generally.

And are we now to part? Is this, indeed, the end of our journey? "How short and how sweet has been the trip!" "I would it were longer!" "May we not have another voyage in the same ship?" "Will she be manned by the same officers and crew?" "Will the fee for passage be the same as before?" "May tickets now be had?" Aye, verily, to all these inquiries. We are now preparing for the new year, and shall be ready to set sail promptly, on the usual date. Those who desire to join us "will please walk up to the captain's office and settle." Let none be late, so that when the bell rings, or the whistle sounds, you will be on hand with all your friends, and ready when the words are given:

"ALL ABOARD FOR 1874!"

THE YELLOW FEVER.

THE *Cincinnati Christian Standard*, of the 20th October, publishes this paragraph:

"Reports of the yellow fever plague at Memphis, up to the 17th, give the following facts: Total number then sick, 780, of which 65 were new cases. The Odd Fellows had buried 23 members, 8 children, and 4 widows; and now have 47 patients, 15 widows, and 27 orphans to care for. The Masons had cared for 96 cases and had buried 31 persons. The Hebrews had buried 65 persons, and have as many more under treatment. Five Catholic priests and five Sisters of Mercy have fallen victims to the pestilence. Brown & Jones, coal dealers, have lost 27 members of their force. 200 workmen in the Panola oil works had the fever; many, however, recovered. The Catholic Orphan Asylum has admitted over 200 orphans. We have not figures concerning the total number of deaths since the disease appeared over ten weeks ago. The foregoing, however, will give some showing of its terrible ravages."

The above extract will give our readers but a small idea of the amount of suffering in Memphis. In a letter we have just received from an officer of the Police Board, dated Memphis, Oct. 23, he says: "I suppose there are not more than ten or fifteen thousand persons who sleep here during the night. The little business that is done is by persons who leave town by rail in the evening and return in the morning, long after business hours. Seven physicians, with six Catholic priests, seven Sisters of Charity, and numerous others with benevolent intentions, have fallen martyrs at their posts; and there are many cases of this kind that will never be known, for both patient and nurse are dead." He says further: "It was impossible to induce any one to submit to the hygienic treatment." Dr. Kibbee, of Streeter, Ill., was there, and for several days tried unsuccessfully to get a patient. The physicians laughed at his ideas, saying 'that though his treatment might do for other fevers, it would be fatal in yellow fever.'" Our

correspondent sends us copies of the *Memphis Appeal*, containing communications from Dr. Kibbee. The first was addressed to the physicians of Memphis, in which he stated fairly and fully his reasons for believing and *knowing* that the water treatment would prove successful in cases of yellow fever. We know that his arguments in the case could not be controverted; but for these allopathic physicians to have given up their pills and plasters, and to have adopted water-cure and hygienic agencies, would have been something not to be expected. Dr. Kibbee then makes a statement to the citizens, offering his services. Our correspondent writes that in making his rounds, he found a new case of fever where he had to climb the back fence to get into the house, the only two occupants being sick, and the family away. No neighbors would call on them; their friends were all afraid; and they were only supposed to be sick, as they had not been seen as usual that morning. He called Dr. Kibbee, who says: "She had been very sick for twenty hours, having been taken with a hard chill, followed by a reaction which brought the pulse up to 130, and the consequent heat was accordingly high. Her case was so severe, that though she had been sick but twenty hours, the urine was totally suppressed, the pain in her head, back and limbs very intense, and she had been suffering so much from nausea and vomiting, that there was great tenderness over the region of the stomach. I folded a wet sheet and put it around her body from the hip to the arm-pits; and I also wet another and wrapped up her lower extremities: I folded several wet towels and put about her head and neck and the upper part of her chest. These sheets were refreshed in cold water, and replaced as fast as the skin came hot. Her pulse fell from 130 to 115 within one hour; the pain all left her; the organs of secretion immediately resumed their functions;

and though the heat was still very great, and required changes of the sheets and towels every few minutes for thirty-six hours, and her pulse remained all that time at 115, yet she is now, forty-eight hours from the beginning, free from pain, and with a pulse but little above the normal condition, and able to take food. I have other cases doing equally well under the same treatment; and I am prepared to announce to you and to the world, that every ordinarily healthy person can be cured of yellow fever, by commencing, within a few hours from the attack, with two sheets, a half dozen towels, a few gallons of cold water, and with clothing enough for comfort during a winter's night." Water will put out fire. It will quench a fever heat; and when properly used, in all its temperatures—hot, cold, tepid, etc.—it will produce effects astonishing to "The Regulars." Why will they continue to go on in their old destructive way, losing case after case, without even *trying* the better way? We hope, in time, to bring the world to more sensible views and practices, in treating yellow fever patients.

GOING TO BED.

WE should never go to bed, with a hope for rest, sleep, and perfect repose, until "all ready." The *preliminaries* for retirement are all just as important as are those for the day's duties. We must not go to bed with an over-loaded stomach, in an anxious or troubled state of mind, with cold extremities, or without anticipating and responding to the calls of nature in all respects. Standing over a register, before a fire, or in a stove-heated room, is not the best way to get warm, for a night's sleep. We should take such vigorous exercise as will give quick circulation to the blood, and not depend on, artificial, but on natural heat. Attention to all these things, followed by such devotional exercises as will bring all the

feelings, emotions and sentiments into accord with the Divine will, subduing passion, removing hatred, malice, jealousy, revenge, and opening the portals of Heaven to all who seek rest, peace and sweet repose.

It is a happy custom with many to conclude the evening's proceedings by singing a sweet, quiet hymn—"The day is past and gone," etc.—which brings all present into delightful union with each other and with "Our Father which art in Heaven."

A CHANGE OF SCENE NECESSARY TO HEALTH.

ONE soon tires of sameness. Take an invalid. She is confined to her room—perhaps to her bed. She remains in one position hour after hour, day after day looking upon the same space or blank walls, with nothing to interest. Possibly she may fix her attention upon a fly, a spider, or any irregular stain or crack on the wall or on the ceiling; and soon any change would be a relief.

Now, why not act on this suggestion, and place on view some agreeable object or objects—a pretty picture, a landscape, pleasant faces such as can be seen in chromos, or a vase of flowers. Even a map of the world would be a relief. A change of the furniture, the book-case or the objects on the mantel. A sensible nurse will know how to do these things; and a sensible physician will prescribe for the mind as well as for the body. Nor are such changes less useful or healthful to those who are not invalids, but who occupy rooms. Every room in every house should be well lighted and well ventilated. No room is fit to sleep in which cannot be made light from the sun, and which is not ventilated. Even a cellar should be so constructed as to admit daylight and fresh air. Invalids are always improved by travel. If one be able to ride a horse,

good will always come of it. Railway riding is always healthful; and changes from place to place will, in many cases, prove to be remedial. Take a railway run through the South during the winter, and it will be vastly better than bitters, pills, plasters, cod-liver oil, or anything from the doctor's saddle-bags or the drug-store.

But begin by tidying up the room; changing the places of objects; putting up pictures; and so giving the invalid something interesting to look at.

COLD FEET.

WHY do the feet become so cold and benumbed? For answer, we may say that among the causes of cold feet are: tight garters, tight stockings, and tight shoes, with, at the basis, a sluggish circulation of the blood and a low tone of vitality. Tight garters and tight shoes impede the circulation of the blood, preventing the warm life-currents from keeping up the natural temperature of the extremities. Tight lacing and corsets, also, has something to do with causing cold feet and a hot head.

Wear good-sized lamb's-wool stockings, or cotton if you prefer; and, instead of using garters, fasten the stockings to

your drawers with a loop and a button: wear easy shoes or boots; dress the person properly—never *tightly*—and exercise the body vigorously by a brisk walk, or a lively run, for ten or fifteen minutes; and your feet will soon come into a comfortable condition.

Of course they should be washed on rising in the morning, when the hands, face and person receive their quick and tonic ablution. Simply wet the skin and wipe dry with soft towel, and then rub vigorously for five minutes with the naked hands. Do this regularly and you will have no more trouble with cold feet.

On retiring at night, should the feet not be warm, they should be wrung, squeezed, and rubbed, till "all-aglow" with currents of living blood, and the feet will be warm.

Invalids may use a bottle of hot water to their feet, rather than lie awake in the semi-torture of cold feet.

Some put cayenne in their shoes to excite circulation; some dance a few moments before retiring at night; others bathe their cold feet in hot water. But we have given the cause and the remedy above, and neither pepper nor medicines need be used for the purpose. Never go to bed with cold feet.

TALKS WITH CORRESPONDENTS.

Brief answers to appropriate questions of general interest, in relation to Diseases, their Causes, Remedies and Means of Prevention. Medical Problems, and Self-treatment will be herein attended to.

NIGHT WORK.—"Can persons working at night, printers on daily papers, and telegraph operators for instance, have continued good health?"

"What course would be right for them to pursue as regards food and rest?"

Night work may be endured for years, providing one lives temperately in other respects. But, unless one has a good constitution and the best of health, he had better work by day and rest by night. So says Dame Nature.

SLEEP—CATARRH—A. B.—"What is proper time to retire and arise?"

Ordinarily an adult should obtain from six to

nine hours sleep. If one retires at ten, he should rise—when rested—say at five or six. Literary men need more sleep than those who labor with their bodies out of doors.

In the July number of the S. of H. 1872, the symptoms, causes and cure of chronic catarrh are given, this number can still be supplied at twenty cents a copy.

SKIN DISEASE, BACK ACHE, SLEEPLESSNESS. Miss C. T.—"(1) From childhood have been subject to skin diseases—of different kinds. Oftenest takes the form of erysipelas—appearing in red blotches, watery pimples, more or less swelling with much heat and intense itching.

Generally appears on face or hands, but occasionally spreading half the surface. Comes once or twice a year, or oftener; runs its course in about a fortnight. Have no pain or sickness with it."

"(2) Have for more than twenty years suffered much pain in my back. Not confined to one spot, but moves up and down, from between my shoulders to my hips. But the greater part of the time is in the small of my back.

"(3) I lie awake about three nights in a week; am nervous."

You are suffering of torpid liver and general biliousness. Leave off butter, cream, and coffee, and adopt a strictly hygienic dietary, and take a tepid ablution twice a week.

"Is there a colony in the U. S. founded on the principle of vegetarianism, anti-drugs, rum and tobacco?"

No, but the Greeley colony, in Colorado, is founded on temperance principles.

BATHING THE HEAD.—SOAP.—Is it best to bathe the head with cold water at night?

[No, do it on rising in the morning, when you wash your face, and other parts of the person, and wipe dry.]

What kind of soap is best?

[Any fine Toilet soap, such as Old Windsor, usually used by barbers, for making lather, called shaving soap.]

SUGAR—SALT—BUTTERMILK.—L. J. S.—“Which is *most* objectionable as an article of diet for persons of bilious temperaments—Sugar or Salt?”

Both are bad.

“Is buttermilk objectionable as food, or will it have the same effect upon bilious persons produced by *sweetmilk*?”

It is enough for invalids to know that water is better than buttermilk.

FRUIT BETWEEN MEALS—O. L. B.—“Is the habit of eating, between meals, good, ripe fruit, berries, etc., very injurious to one who is a strict vegetarian, and eats but two meals a day?”

It is better to eat the fruit as a part of the meal; or you may take three meals at proper intervals, and make one of them of fruit exclusively.

COOK BOOK.—F. M. H.—“Please give the name and price of a good and new receipt book for making wholesome dishes, pies, cake, bread, etc., etc., according to the rules of health; I do not approve of the common “abomination” of the general mode of cookery—the use of so much lard, butter, compounds, etc., that compose the majority of our “rich” dishes—and bring on dyspepsia and attendant ills.”

[*Hydropathic Cook Book* by Dr. Trall is the best, price \$1.50; also read articles of seasonable dishes by Julia Colman now being published in the *SCIENCE OF HEALTH*.]

SHANKS AND THIGHS.—An old reader.

—“I am six feet two inches in height, quite slender and weigh 165 pounds; enjoy average health. I have a good phrenology, and a handsome physiognomy. But the trouble is this: I have the most ungainly legs, the shanks are extremely long and large, while my thighs are very short and small, and, owing to this *deformity* in their shape, it is impossible to so dispose of them while sitting, that they will not present a very awkward and unsightly appearance. Now I love and enjoy society exceedingly, and have a talent and taste for conversation which affords me my richest delight, but that sad impediment effectually prevents the gratification of my ruling passion and greatly curtails the pleasure of life. I have often been profited by suggestions in your Journal, and if you can benefit me any how I will thank you sincerely. How can I diminish the length of shanks, or increase the size of my thighs?”

[Our correspondent must accept the condition of things. He cannot shorten his shanks. He may enlarge his thighs. To do this he must take such a course of training and of exercise as is practised by gymnasts, who develope muscle, enlarge the chest, etc., putting on or taking off flesh when there is too little or too much. But he is very sensitive, and by thinking much of himself, will be all the more awkward. Let him thank God that he is not idiotic or imbecile, that he has shanks and thighs, though they be long and thin.]

THE HUNGER CURE.—“What is the nature, and what are the principles of the ‘Hunger Cure’ mentioned in some of your publications?” For full and complete description of this method of curing, which was commenced in 1817 by John Schrott in Germany, see *Hydropathic Family Physician*, price \$4.00.

EAR-ACHE.—R. S. L.—“What is the cause and cure of ear-ache?”—This troublesome complaint is sometimes occasioned by foreign bodies or insects in the Meatus. The affection is generally of the neuralgic, or rheumatic character. Syringe the ear with warm water, take tepid foot-baths, wet sheet packs and diet for a day or two, will generally effect a cure. If the bowels are at all constipated, use warm water injections.

CHESTNUTS.—S. C. S.—Boiled chestnuts make a wholesome and delicious food; should be boiled about an hour. Be careful to boil only sound nuts as they are liable to be infected with worms.

COLIC.—“What is the cause and cure of Wind on the Stomach?”—One of the causes is over-eating, and constipation; and one of the remedies, warm water injections; or, hot fomentations. Put the patient to bed, and apply to the bowels, cloths wrung out of hot water, to be changed every few moments until the pain ceases. Then wrap up and keep warm and quiet. Use syringe when necessary. Fasting, on a very light diet, will prove remedial in such cases.

VOICES OF THE PEOPLE.

Extracts from the letters of correspondents, showing the progress of Health Reform, and the needs and aspirations of the people in all parts of the world, for better health and richer manhood, will be given.

J. M. writes from Florida:—“Please send me a small outfit for an agent, if you have not done so already. You know best what I need; the outfit should include a few numbers of S. of H. for samples. I put all mine in covers book form. This is not a very promising field to circulate your publications; this being the case, the greater the need. A visitation of yellow fever in this place is imminent, business closing up, and the inhabitants many of them escaping for dear life. Two cases of some malady, resembling yellow fever, having recently occurred in our midst, and one of them fatal, is proof positive in the mind of many that it is upon us already.

“Many seek safety in flight; others, with less means or more fortitude, stand their ground, and take their chances. I am thankful that I am better posted on the subject of health. I thank that no intelligent hygienist need fear any form of fever. Those who fear the pestilence, tell me that no one is safe; that when I take the fever I will change my mind, and submit to drug treatment. They think others are as deep in the fog as themselves, or their M. D.’s. I tell them “the wicked flee when no man pursueth.” On most points pertaining to health, most people know but little and care less. One excuse often made for neglecting this subject is that they do not practice what they know already; some are frank enough to say that they like (what they call) good living, and will have it while they can get it, and take the consequences. Others act it out who are not bold enough to say it in words; even those who profess better things.

“How strange it is that parents will bring up their children as they do, teaching them by their example to acquire and needlessly indulge perverted appetites, which they dread to deny, more than they dread the consequences of indulgence, only one of which is yellow fever, which drives them from their homes, or consigns them to an untimely grave.

“I am aware this will provoke a smile, and be pronounced highbrought by many; but others, who are more intelligent, can discover in it more truth than poetry.

“I prefer that what little influence I have should tell in advancing the cause of health reform, which I think I can best do by taking an agency and circulating your publications.

“I have just read your acknowledgment of last list of names for the trial trip. With the hope that I shall secure of all for the year after the expiration of the three months, I will work faithfully

for that end, as I have to secure forty subscribers for the trial trip.”

TRAINING CHILDREN.—Mrs. B. F. B. says: “Few of the great mass of people ever pause in the busy routine of life to think of the welfare of the little beings entrusted to their care. A hasty, it may be, sentence was wafted to my ear the other day, indicating the truth of the above remark, from a busy mother, who was vainly trying to accomplish two days’ work in one. She said, ‘When I have so much to do the children must stay out of the way.’ ‘Out of the way,’ meant out of the house, out of the yard, and in a large city, the only refuge in the street. Is it any wonder that those children’s mouths are filthy with vile oaths, and their habits such as to make one blush? And yet in that mother’s home dust is not allowed to settle, nor a piece of furniture to be out of place. Household matters are paramount in her mind, and the children are left to themselves. It is not a miracle that boys smoke and tipple, when fathers set the example, often placing the wine cup to their lips in infancy. It is not a marvel that men are failing financially through the extravagance of thoughtless wives, who have never been taught the value of money. It is a serious and appalling fact that industry and economy are looked on by many as disgraceful, causing those in the humbler walks of life to strive to compete with the wealthier. These evils could be remedied in a great degree by a careful and judicious training of children. After a few years the little pretenders will take our places, and whatsoever we instill into their youthful minds will crop then, be it for good or for evil. As mothers, our first duty belongs to our children, and, while we should not over-indulge them, we should see that they have fresh air, proper food, and good moral training. Early impressions are always the strongest; therefore we should be very careful to give those dear ones sound, healthy and religious instructions. Let us teach our daughters economy and industry, while we teach our sons temperance and godliness.”

THE COLMANS.—The Fond du Lac (Wisconsin) Commonwealth describes a recent pleasant occasion thus: “One of the most enjoyable social visits that has taken place this season occurred at the residence of Hon. Elihu Colman, Wednesday evening. About forty persons were in attendance. The return to her early home of Miss Julia Colman, whom many of our citizens remember, added much to the pleasure of the occasion. Miss Colman, as most of our readers are aware, is an authoress

whose productions find their way into many of the leading publications of the East. She has resided in New York the past fifteen years. On Wednesday of next week another interesting event will transpire at La Crosse. The Golden Wedding of the Rev. Mr. Colman and wife, parents of Hon. C. L. Colman, of La Crosse, Hon. E. Colman, of this city, Mr. Spire Colman, of La Crosse, Rev. Henry Colman, of Waukesha and Miss Julia Colman, of New York, will be celebrated. As the venerable minister was for a long term of years a resident of Fond du Lac, many and hearty will be the congratulations sent from here. How very few of us have the pleasure of participating in the celebration of our parents' Golden Wedding? The Commonwealth of Fond du Lac, sends its congratulations.

[Our readers, who enjoy seasonable—and sensible—dishes, will congratulate our contributor, Miss Julia Colman, on the "good time" she had at the gathering. She deserves it; good enough for her.]

HEAD-ACHE CURE.—A correspondent, who evidently believes in hygiene and magnetism, sends us the following. He says, "A nervous headache is a source of untold misery to thousands, a source of serious discomfort that can only be sufficiently appreciated by its victims. I propose to give an easy, quick, and pleasant mode of cure. My method is, first, to seat the patient in a chair, then the operator to dampen his hands in cold water, and standing behind the patient, place the hands gently upon the forehead, draw them towards you, over the head backward, being particular to press the hands lightly over the place where the most pain is observed; and as they leave the head throw them vigorously behind you, as if endeavoring to throw something out at the ends of the fingers; keep the hands wet, as water is a good conductor of electricity, and in from three to five minutes the patient will be relieved. Not every person has the power to alleviate pain in this way, but there are probably few persons in good health who can not exercise it beneficially. My theory is that the ache is caused immediately by a determination from some cause, as fatigue or over mental exertion, of the blood and magnetic fluids to the brain; producing congestion, and anything that will serve to dissipate or distribute them, and restore equilibrium, will remove the pain. Sick head-aches, proceeding from derangement of the stomach, may be alleviated temporarily as above, but the cause must be reached before a permanent cure can be effected. Fasting and repose are best for this. There is no occult mystery about this, but a simple fact, witnessed over and over again in my own experience. Try it, readers and be convinced. Persons who find that they possess this power in a strong degree may apply it to the alleviation of other pains and aches. I have often caused an entire suspension of tooth-ache for hours at a time, following out the

same method of making passes over the part affected.

CORSETS AND CRUELTY.—An "Old School-girl" writes from Montreal, in regard to the system of physical training resorted to in one of these institutions. She says: "At the age of thirteen I was sent to a fashionable boarding-school in the neighborhood of Montreal, and was quickly given to understand that the system embraced not only special mental accomplishments and attainments, but also figure-training; that I might, in a word, be made a fashionable young lady. Need I say that the first article of dress attended to was my stays; those that I wore upon entering were removed, and another pair, smaller in the waist, more strongly made and heavily boned, were substituted. These were not removed night or day, except twice a week for a few moments, for the purpose of bathing, and each morning they were drawn a little closer, so that a regular system of reduction of about one-half an inch a week, and later one-half an inch a month, was enforced; until the degree of tenuity, consonant with beauty in the principal's eyes, was attained. This was at first attended with inconvenience and irksome tightness, and then with positive pain; but no amount of entreaties secured me a moment of respite. Some of the older girls assured me that after a time I would not suffer, and that they felt no pain. I more than once removed my corsets stealthily, but only to gain for myself severe punishment—at first severe tasks and confinement in a solitary room for my disobedience. Persisting in attaining such relief as I could, in spite of the punishment, I again, after retiring, loosened my stays, but overslept, and had no opportunity to tighten them before the governess made her rounds. I was soon laced to the required measure, and called before the principal and reprimanded severely, and then subjected to having my hands tied behind me during the day, and before me at night, in such a way that it was impossible for me to free them or remove the corsets. To prevent my companions from doing this, the belt around my waist was secured by a small padlock. One of the younger girls was detailed to feed me, and attend to my wants. This was kept up for an entire week, and of course was so severe that after that no matter how my corsets pained me I never touched the laces. After six months my waist, having been reduced from twenty-two to sixteen inches, was considered small enough and no further attempt was made at reduction. After the first year I will confess I suffered but little actual pain from my corsets, but I had a constant feeling of weariness and inclination to lay down and rest upon every possible occasion. This weakness may have been occasioned from insufficient nourishment, as I could take but very little. I found that this enforced wearing of the corsets at this period of the girl's growth begets an unwholesome appetite for tight-lacing. Before leaving I found myself as anxious as the others to have my stays drawn in."

The writer then speaks of other disorders and weaknesses of which she and nearly every other girl suffers for the want of exercise, sunlight, and in consequence of blood-poisoning constipation and derangement of the viscera by tight lacing. The story seems too terrible to be true, but is substantiated by the writer's name and address.

[We congratulate the girls of to-day on the fact, that no such foolish cruelty, is now practiced. The big bustles, the high heels, and the wads of dead hair or wampum, now in use, are, with our long dresses, the chief enslavements and nuisances, from which fashionable women now suffer. We hope they may throw off these chains ere long, and be free.]

The Library.

A SELF-MADE WOMAN; or, Mary Idyll's Trials and Triumphs. By E. M. Buckingham. 12mo, fancy cloth, pp. 320. Price, \$1.75. New York: S. R. Wells, Publisher, 389 Broadway.

The true novel is not altogether a work of fiction, for the reason that it has a close relation to the actual experience of human life; and we readily appreciate its bearings and purpose from our knowledge of those experiences. In fact, the nearer the novelist or dramatist approaches the natural, the firmer is his grasp upon the minds and hearts of his readers. Our interest in any subject depends upon our antecedent knowledge of it, or some correlated subject. Imagination lights up the work of Miss Buckingham with a vivid play of warm description and earnest sentiment; but the ground-work of reality now and then peeps out in refreshing contrast with its brilliant setting. The highly organized, intense, anxious, soaring student, teacher, and governess, finds her path hemmed in with difficulties of a most discouraging character; but determined on self-improvement, she hesitates at no sacrifice, hails in no effort to reach her goal. Circumstances bend before her nervous onset, and after long years of toil and suffering, she comes into the full sunshine of success and satisfaction—the poor, neglected, malformed, struggling girl becomes the fascinating, triumphant woman. As we follow Mary Idyll in her chequered career, and see her gathering strength as she proceeds, culling every flower of joy and suppressing every withered leaf of disappointment, we cannot but sympathise with her moods of exaltation or dejection, and rejoice in her final victory. The sentiment, that "life is real, life is earnest," seems to be the prevailing inspiration throughout her course, and in its reality and earnestness is found the truest, best result. To the young the book offers an agreeable story, and many good suggestions for living a noble, useful, happy life.

AGAINST THE STREAM: the Story of a Heroic Age in England. By the author of "The Schouberg-Cotta Family," "Diary of Kitty Trevelyan," etc. One vol. 12mo, pp. 589. Muslin—price, \$1.75. New York: Dodd and Mead.

A charming story, by one of the most charming writers. It is a real encouragement to come into such an atmosphere. A good spirit animates the author, and one feels chastened, improved, and elevated by communing with so noble a nature. A useful lesson is given to the reader of "Against the Stream."

A GOOD MATCH. By Amelia Perrier, author of "Mea Culpa." One vol. 12mo, pp. 375. Muslin—price, 1.50. New York: J. B. Ford and Co.

Many phases of English life are vividly portrayed by this really fine writer. It is sufficiently lively to keep one wide awake from beginning to end, and then to set him to dreaming. Is the author a clairvoyant? She seems to "see" into subjects regarded by many as mysterious.

A MANUAL OF PRACTICAL HYGIENE, intended especially for Medical Officers of the Army and for Civil Medical Officers of Health. By Edward A. Parkes, M.D., F.R.S. Fourth edition, 8vo, pp. 672. Price, \$6.

Ergienic Seasoning.

MOTHER.—"Tommy, dear, there is some nice castor-oil with orange ice in it." Doctor.—"Now, remember, don't give it all to Tommy—leave some for me." But Tommy, dear, was wide-awake, having had a touch of the castor once before, and instantly replied, "Doctor's such a nice man, ma, give it all to him." Ma laughed, and Tommy got better without the aid of any more castor-oil and orange ice.

CIRCUMSTANCES.—Passenger—"Quite the sort of weather for your business, these April-showers, I suppose?" Red-faced Driver.—"No, sir, git' me fair weather; 'cause if it ain't fair, no one gets up outside, there ain't no one to get up outside, and if there ain't no one to get up outside, there ain't no one to say, 'Coachman, get yourself something warm to drink.'"—*Punch.*

"I SAY, don't you know who that is?" "No." "What a fool you are, it's the celebrated Jones." "What's he celebrated about then?" "Well, I'm blest if I know."

AN AMERICAN, writing poetically of the weather, says, "The back-bone of winter is broken, but the tail wags yet occasionally."

"THAT'S a very stupid brute of yours, John," said a Scotch minister to his parishioner, the peat-dealer, who drove his merchandize from door to door in a small cart drawn by a donkey. "I never see you but the creature is braying." "Ah, sir," said the peat-dealer, "ye ken the heart's warm when friends meet."

A MILITARY OFFICER, one day while reviewing his company, happened to be thrown from his horse, and as he lay sprawling on the ground, said to a friend who ran to his assistance, "I thought I had improved in horsemanship, but I find I have fallen off."

AN OLD LADY thinks the Government Bonds must be a family of strong religious instincts, because she hears of so many of them being converted.

AN OLD FARMER named Ami, returning from market a little boozy, stopped for a nap. Awakening at night a little bewildered, he soliloquized thus, "Am I Ami or am I not Ami; If I am Ami, then where am I; if I am not Ami, then who in the deuce am I?"

"ERIN-GO-BRAGH.—Weary Traveler—"How far is it to Ballinacree, my friend?" Raw Native—"Shure, sor, av ye walk smart it's not more than three miles."

"DO YOU believe there are any people who never heard 'Old Hundred'?" asked a musical young lady at a family table. "Lots of folks never heard it, interrupted the precocious younger brother. "Where are they, I should like to know?" was asked. "In the deaf and dumb asylums."

A PHYSICIAN stopped at the stoop of a country apothecary and enquired for a pharmacopœia. "Sir," said the apothecary, "I know of no such farmer living in these parts."

A BLUSHING damsel called at the office of a paper a few days since and enquired for "papers for a week back," and that innocent young publisher's clerk thought she wanted perhaps a sticking plaster, instead of a bundle of papers for a bustle.

WHY is the first chicken of a brood like a mainmast of a ship? A little forward of the main hatch.

2 gal

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